

**FEDERAL ENERGY REGULATORY COMMISSION**

---

**STANDARDS**

**AND**

**COMMUNICATION PROTOCOLS**

**FOR**

**OPEN ACCESS SAME-TIME INFORMATION SYSTEM**

**(OASIS)**

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**Version 1.4**

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## 1. INTRODUCTION

### 1.1 DEFINITION OF TERMS

The following definitions are offered to clarify discussions of the OASIS in this document.

- a. **Transmission Services Information (TS Information)** is transmission and ancillary services information that must be made available by public utilities on a non-discriminatory basis to meet the regulatory requirements of transmission open access.
- b. **Open Access Same-Time Information System (OASIS)** comprises the computer systems and associated communications facilities that public utilities are required to provide for the purpose of making available to all transmission users comparable interactions with TS Information.
- c. **Open Access Same-Time Information System Node (OASIS Node)** is a subsystem of the OASIS. It is one computer system in the (OASIS) that provides access to TS Information to a Transmission Customer.
- d. **Transmission Provider (TP or Primary Provider)** is the public utility (or its designated agent) that owns, operates or controls facilities used for the transmission of electric energy in interstate commerce. (This is the same term as is used in Part 35.3).
- e. **Transmission Customer (TC or Customer)** is any eligible Customer (or its designated agent) that can or does execute a transmission service agreement or can or does receive transmission service. (This is the same term as is used in Part 35.3).
- f. **Secondary Transmission Provider (ST, Reseller, or Secondary Provider)** is any Customer who offers to sell transmission capacity it has purchased. (This is the same as Reseller in Part 37).
- g. **Transmission Services Information Provider (TSIP)** is a Transmission Provider or an agent to whom the Transmission Provider has delegated the responsibility of meeting any of the requirements of Part 37. (This is the same as Responsible Party in Part 37).
- h. **Value-Added Transmission Services Information Provider (VTSIP)** is an entity who uses TS Information in the same manner as a Customer and provides value-added information services to its Customers.

## 2. NETWORK ARCHITECTURE REQUIREMENTS

### 2.1 ARCHITECTURE OF OASIS NODES

- a. **Permit Use of Any OASIS Node Computers:** TSIPs shall be permitted to use any computer systems as an OASIS Node, so long as they meet the OASIS requirements.

- b. **Permit Use of Any Customer Computers:** OASIS Nodes shall permit the use by Customers of any commonly available computer systems, as long as they support the required communication links to the Internet.
- c. **Permit the Offering of Value-Added Services:** TSIPs are required, upon request, to provide their Customers the use of private network connections on a cost recovery basis. Additional services that are beyond the scope of the minimum OASIS requirements are also permitted. When provided, these private connections and additional services shall be offered on a fair and non-discriminatory basis to all Customers who might choose to use these services.
- d. **Permit Use of Existing Communications Facilities:** In implementing the OASIS, the use of existing communications facilities shall be permitted. The use of OASIS communication facilities for the exchange of information beyond that required for open transmission access (e.g., transfer of system security or operations data between regional control centers) shall also be permitted, provided that such use does not negatively impact the exchange of open transmission access data and is consistent with the Standards of Conduct in Part 37.
- e. **Single or Multiple Providers per Node:** An OASIS Node may support a single individual Primary Provider (plus any Secondary Providers) or may support many Primary Providers.

## 2.2 INTERNET-BASED OASIS NETWORK

- a. **Internet Compatibility:** All OASIS Nodes shall support the use of internet tools, internet directory services, and internet communication protocols necessary to support the Information Access requirements stated in Section 4.
- b. **Connection through the Public Internet:** Connection of OASIS Nodes to the public Internet is required so that Users may access them through Internet links. This connection shall be made through a firewall to improve security.
- c. **Connection to a Private Internet Network:** OASIS Nodes shall support private connections to any OASIS User (User) who requests such a connection. The TSIP is permitted to charge the User, based on cost, for these connections. The same internet tools shall be required for these private networks as are required for the public Internet. Private connections must be provided to all users on a fair and nondiscriminatory basis.
- d. **Internet Communications Channel:** The OASIS Nodes shall utilize a communication channel to the Internet which is adequate to support the performance requirements given the number of Users subscribed to the Providers on the Node (see Section 5.3).

## 2.3 COMMUNICATION STANDARDS REQUIRED

- a. **Point-to-Point Protocol (PPP) and Internet Protocol Control Protocol (IPCP)** (reference RFCs 1331 and 1332) shall be supported for private internet network dial-up connections.

- b. **Serial Line Internet Protocol (SLIP)** (reference RFC 1055) shall be supported for private internet network dial-up connections.
- c. **Transport Control Protocol and Internet Protocol (TCP/IP)** shall be the only protocol set used between OASIS Nodes whenever they are directly interconnected, or between OASIS Nodes and Users using private leased line internet network connections.
- d. **Hyper Text Transport Protocol (HTTP)**, Version 1.0 (RFC 1945), shall be supported by TSIPs so that Users' web browsers can use it to select information for viewing displays and for downloading and uploading files electronically.
- e. **Internet Protocol Address:** All OASIS Nodes are required to use an IP address registered with the Internet Network Information Center (InterNIC), even if private connections are used.

## 2.4 INTERNET TOOL REQUIREMENTS

Support for the following specific internet tools is required, both for use over the public Internet as well as for any private connections between Users and OASIS Nodes:

- a. **Browser Support:** OASIS Nodes shall insure that Users running minimally either Netscape's Navigator version 4.0.x or Microsoft's Internet Explorer version 4.0.x browsers (or any other commercially or privately available browser supporting that set of capabilities common to both of these industry standard browsers) shall have a fully functional user interface based on the Interface Requirements defined in Section 4.
- b. **HTML Forms** shall be provided by the TSIPs to allow Customers to enter information to the OASIS Node.
- c. **Domain Name Service (DNS)** (ref. RFC 1034, 1035) shall be provided as a minimum by the TSIPs (or their Internet Service Provider) for the resolution of IP addresses to allow Users to navigate easily between OASIS Nodes.
- d. **Simple Network Management Protocol (SNMP)** is recommended but not required to provide tools for operating and managing the network, if private interconnections between OASIS Nodes are established.
- e. **The Primary Provider shall support E-mail** for exchanges with Customers, including the sending of attachments. The protocols supported shall include, as a minimum, the Simple Messaging Transfer Protocol (SMTP), Post Office Protocol (POP), and Multipurpose Internet Mail Extensions (MIME).

## 2.5 NAVIGATION AND INTERCONNECTIVITY BETWEEN OASIS NODES

- a. **World Wide Web Browsers:** TSIPs shall permit Users to navigate using WWW browsers for accessing different sets of TS Information from one Provider, or for getting to TS Information from different Providers on the same OASIS Node. These navigation methods shall not favor User access to any Provider over another Provider, including Secondary Providers.
- b. **Internet Interconnection across OASIS Nodes:** Navigation tools shall not only support navigation within the TSIP's Node, but also across interconnected OASIS Nodes. This navigation capability across interconnected Nodes shall, as a minimum, be possible through the public Internet.

## 3. INFORMATION ACCESS REQUIREMENTS

### 3.1 REGISTRATION AND LOGIN REQUIREMENTS

- a. **Location of Providers:** To provide Users with the information necessary to access the desired Provider, all Primary Providers shall register their OASIS Node URL address with www.tsin.com. This URL address should include the unique four letter acronym the Primary Provider will use as the PRIMARY\_PROVIDER\_CODE.
- b. **Initial User Registration:** TSIPs shall require Users to register with a Primary Provider before they are permitted to access the Provider's TS Information. There must be a reference pointing to registration procedures on each Primary Provider's home page. Registration procedures may vary with the administrative requirements of each Primary Provider.
- c. **Initial Access Privileges:** Initial registration shall permit a User only the minimum Access Privileges. A User and a Primary Provider shall mutually determine what access privilege the User is permitted. The TSIP shall set a User's Access Privilege as authorized by the Primary Provider.
- d. **User Login:** After registration, Users shall be required to login every time they establish a dial-up connection. If a direct, permanent connection has been established, Users shall be required to login initially or any time the connection is lost. Use of alternative forms of login and authentication using certificates and public key standards is acceptable.
- e. **User Logout:** Users shall be automatically logged out any time they are disconnected. Users may logout voluntarily.

### 3.2 SERVICE LEVEL AGREEMENTS

Service Level Agreements: It is recognized that Users will have different requirements for frequency of access, performance, etc., based on their unique business needs. To accommodate these differing requirements, TSIPs shall be required to establish a "Service Level Agreement" with each User, which specifies the terms and conditions for access to the information posted by the Providers. The default Service Level Agreement shall be Internet access with the OASIS Node meeting all minimum performance requirements.

### 3.3 ACCESS TO INFORMATION

- a. **Display:** TSIPs shall format all TS Information in HTML format such that it may be viewed and read directly by Users without requiring them to download it. This information shall be in clear English as much as possible, with the definitions of any mnemonics or abbreviations available on-line. The minimum information that is to be displayed is provided in the Templates in Section 4.3.
- b. **Read-Only Access to TS Information:** For security reasons, Users shall have read-only access to the TS Information. They shall not be permitted to enter any information except where explicitly allowed, such as HTML transaction request forms or by the Templates in Section 4.3.
- c. **Downloading Capability:** Users shall be able to download from an OASIS Node the TS Information in electronic format as a file. The rules for formatting of this data are described in Section 4.2.
- d. **On-Line Data Entry on Forms:** Customers shall be permitted to fill out on-line the HTML forms supplied by the TSIPs, for requesting the purchase of services and for posting of products for sale (by Customers who are Resellers). Customers shall also be permitted to fill-out and post Want-Ads.
- e. **Uploading Capability:** Customers shall be able to upload to OASIS Nodes the filled-out forms. TSIPs shall ensure that these uploaded forms are handled identically to forms filled out on-line. TSIPs shall provide forms that support the HTTP input of Comma Separated Variable (CSV) records. This capability shall permit a Customer to upload CSV records using standard Web browsers or additional client software (such as `fetch_http`) to specify the location of the CSV records stored on the Customer's hard disk.
- f. **Selection of TS Information:** Users shall be able to dynamically select the TS Information they want to view and/or download. This selection shall be, as a minimum, through navigation to text displays, the use of pull-down menus to select information for display, data entry into forms for initiating queries, and the selection of files to download via menus.

### 3.4 PROVIDER UPDATING REQUIREMENTS

The following are the Provider update requirements:

- a. **Provider Posting of TS Information:** Each Provider (including Secondary Providers and Value-Added Providers) shall be responsible for writing (posting) and updating TS Information on their OASIS Node. No User shall be permitted to modify a Provider's Information.
- b. **INFO.HTM:** Each Provider shall provide general information on how to use their node and describe all special aspects, such as line losses, congestion charges and assistance. The address for the directory of this information shall be INFO.HTM (case sensitive), an HTML web page, linked to the Provider's registered URL address. See section 4.5 for information required to be on the web page INFO.HTM.
- c. **OASIS Node Space for Secondary Provider:** To permit Users to readily find TS Information for the transmission systems that they are interested in, TSIPs shall provide database space on their OASIS Node for all Secondary Providers who have purchased, and who request to resell, transmission access rights for the power systems of the Primary Providers supported by that Node.
- d. **Secondary Provider Posting to Primary Provider Node:** The Secondary Providers shall post the relevant TS Information on the OASIS Node associated with each Primary Provider from whom the transmission access rights were originally purchased.
- e. **Secondary Provider Posting Capabilities:** The TSIPs shall ensure that the Secondary Providers shall be able to post their TS Information to the appropriate OASIS Nodes using the same tools and capabilities as the Customers, meet the same performance criteria as the Primary Providers, and allow users to view these postings on the same display page, using the same tables, as similar capacity being sold by the Primary Providers.
- f. **Free-Form Posting of non-TS Information:** The TSIP shall ensure that Providers and Customers may post non-TS Information, such as Want-Ads and that this information is easily accessible by all Users. The TSIP shall be allowed to limit the volume and/or to charge for the posting of non-TS Information.
- g. **Time Stamps:** All TS Information shall be associated with a time stamp to show when it was posted to the OASIS Node.
- h. **Transaction Tracking by an Assignment Reference Number:** All requests for purchase of transmission or ancillary services will be marked by a unique accounting number, called an assignment reference.
- i. **Time-Stamped OASIS Audit Log:** All posting of TS Information, all updating of TS Information, all User logins and disconnects, all User download requests, all Service Requests, and all other transactions shall be time stamped and stored in an OASIS Audit Log. This OASIS Audit Log shall be the official record of interactions, and shall be maintained on-line for

download for at least 90 days. Changes in the values of posted Capacity (Available Transfer Capability) must be stored in the on-line Audit Log for 20 days. Audit records must be maintained for 3 years off-line and available in electronic form within seven days of a Customer request.

- j. **Studies:** A summary description with dates, and programs used of all transmission studies used to prepare data for the Primary Provider's ATC and TTC calculation will be provided along with information as to how to obtain the study data and results.
- k. **Organizational Charts:** As required in 83 FERC 61,301, each Provider shall provide the company's organizational chart, job descriptions, and personnel names, using formats viewable and downloadable directly (i.e., without the use of external or third-party plug-ins or application software) by the browsers listed in Section 2.4a.

### 3.5 ACCESS TO CHANGED INFORMATION

- a. **General Message & Log:** TSIPs shall post a general message and log that may be read by Users. The message shall state that the Provider has updated some information, and shall contain (or point to) a reverse chronological log of those changes. This log may be the same as the Audit Log. The User may use the manual capability to see the message.
- b. **TSIP Notification Design Responsibilities:** The TSIP shall avoid a design that could cause serious performance problems by necessitating frequent requests for information from many Users.

### 3.6 USER INTERACTION WITH AN OASIS NODE

There are three basic types of User interactions which must be supported by the OASIS Node. These interactions are defined in Section 4.3.

- a. **Query/Response:** The simplest level of interactions is the query of posted information and the corresponding response. The User may determine the scope of the information queried by specifying values, through an HTML form, a URL string, or an uploaded file, using Query Variables and their associated input values as defined with each Template in Section 4.3. The response will be either an HTML display or a record oriented file, depending on the output format that the User requests.

The TSIP may establish procedures to restrict the size of the response, if an overly broad query could result in a response that degrades the overall performance of the OASIS Node for their Users.

- b. **Purchase Request:** The second type of Customer interaction is the submittal of a request to purchase a service. The Customer completes an input form, a URL string or uploads a file and submits it to the OASIS Node. The uploaded file can either be a series of Query Variables or a record oriented file.

The Seller of the service, possibly off-line from the OASIS Node, processes the request and the status is updated accordingly.

If the Seller approves the purchase request, then the Customer must again confirm it. Once the Customer confirms an approved purchase, a reservation for those services is considered to exist, unless later the reservation is reassigned, displaced, or annulled.

- c. **Upload and Modify Postings:** Customers who wish to resell their rights may upload a form, create the appropriate URL or upload a file to post services for sale. A similar process applies to eligible Third Party Sellers of ancillary services. The products are posted by the TSIP. The seller may monitor the status of the services by requesting status information. Similarly the Seller may modify its posted transmission services by submitting a service modification request through a form, a URL query, or by uploading a file.

## 4. INTERFACE REQUIREMENTS

### 4.1 INFORMATION MODEL CONCEPTS

- a. **ASCII-Based OASIS Templates:** For providing information to Users, TSIPs shall use the specified OASIS Templates. These Templates define the information that must be presented to Users, both in the form of graphical displays and as downloaded files. Users shall be able to request Template information using query-response data flows. The OASIS Templates are described in section 4.3. The Data Element Dictionary, which defines the Data Elements in the OASIS Templates, is provided in Appendix A.

Data elements must be used in the exact sequence and number as shown in the Templates when file uploads and downloads are used. Although the contents of the graphical displays are precisely defined as the same information as in the Templates, the actual graphical display formats of the TS information are beyond the scope of the OASIS requirements. Due to the nature of graphical displays, there may be more than one graphical display used to convey the information in a single Template.

- b. **ASCII-Based OASIS File Structures:** For uploading requests from and downloading information to Users, TSIPs shall use specific file structures that are defined for OASIS Template information (see section 4.2). These file structures are based on the use of headers that contain the Query Variable information, including the name of the OASIS Template. These headers thus determine the contents and the format of the data that follows. Although headers may not be essential if file transfers contain the exact sequence and number of Data Elements as the Templates, this feature is being preserved for possible future use when additional flexibility may be allowed.

### 4.2 OASIS NODE CONVENTIONS AND STRUCTURES

#### 4.2.1 OASIS Node Naming Requirements

The following naming conventions shall be used to locate information posted on an OASIS Node. OASIS naming conventions shall conform to standard URL structures.

#### **4.2.1.1 OASIS Node Names**

In order to provide a consistent method for locating an OASIS Node, the standard Internet naming convention shall be used. All OASIS Node names shall be unique. Each Primary Provider OASIS Node name and home directory shall be registered with the master OASIS directory site at <http://www.tsin.com>. OASIS Node names shall be stored in an Internet DNS name directory.

#### **4.2.1.2 OASIS Node and Primary Provider Home Directory**

The home directory name on an OASIS Node shall be "OASIS" (all upper case) to identify that the directory is related to the OASIS. The directory of each Primary Provider shall be listed under the "OASIS" directory:

**[`http://\(OASIS Node name\)/OASIS/\(PRIMARY\_PROVIDER\_CODE\)`](http://(OASIS Node name)/OASIS/(PRIMARY_PROVIDER_CODE))**

Where:

**(OASIS Node name)** is the World Wide Web URL address of the OASIS Information Provider.

**(PRIMARY\_PROVIDER\_CODE)** (Case sensitive) is the 4-character acronym of the primary provider.

**PRIMARY\_PROVIDER\_CODE**s shall be registered with the master OASIS directory site at <http://www.tsin.com>. A pointer to user registration information shall be located on the Primary Provider's home page.

#### **4.2.1.3 CGI Script Names**

Common Gateway Interface (CGI) scripts shall be located in the directory "data" as follows (case sensitive):

**[`http://\(OASIS Node name\)/OASIS/\(PRIMARY\_PROVIDER\_CODE\)/data/\(cgi script name\)?\(Query Variables\)`](http://(OASIS Node name)/OASIS/(PRIMARY_PROVIDER_CODE)/data/(cgi script name)?(Query Variables))**

Where:

**(cgi script name)** is the OASIS Template name in lower case (see Section 4.3). Other cgi scripts may be defined as required to implement the HTML interface to the documented Templates.

(**Query Variables**) is a list of query variables with their settings formatted as defined by the HTTP protocol (i.e., URL encoded separated by ampersands).

Example:

To request the hourly schedule Template at Primary Provider WXYZ Co.

`http://www.wxyz.com/OASIS/WXYZ/data/schedule ?templ=schedule& ver=1.2& fmt=data & stime=19960412040000PD &stime=19960412100000PD& pprov=wxyz`

## 4.2.2 Data Element Dictionary

The following are the requirements for the Data Element Dictionary:

- a. **Definition of OASIS Information Elements:** All OASIS Information Data Elements shall be defined in the Data Element Dictionary which will be stored in the OASIS Node directory:

`http://(OASISNode Name)/OASIS/(PRIMARY_PROVIDER_CODE)/(datadic.htm | datadic.txt)`

Where:

- **datadic.htm is the HTML version of the Data Element dictionary (case sensitive)**
- **datadic.txt is the ASCII text version of the Data Element dictionary (case sensitive)**
- The Data Element Dictionary is defined in Appendix A.

- b. **Provider-specific Data Element Values:** The valid values that certain OASIS Information Data Elements may take on, such as `PATH_NAME`, etc., are unique to a Primary Provider. Names that must be uniquely identified by Primary Provider shall be listed on-line on the OASIS Node via the LIST Template (see Section 4.3.5). In posting OASIS information associated with Data Elements which are not free-form text, TSIPs shall use only the accepted Data Element values listed in the Data Element Dictionary and/or those values posted in the LIST of provider specific names provided on the OASIS Node.

## 4.2.3 OASIS Template Constructs

### 4.2.3.1 Template Construction

Section 4.3 lists the set of OASIS Templates that shall be supported by all OASIS Nodes. These OASIS Templates are intended to be used precisely as shown for the transfer of data to/from OASIS Nodes, and identify, by Data Elements names, the information to be transferred. The construction of the OASIS Templates shall follow the rules described below:

- a. **Unique OASIS Template Name:** Each type of OASIS Template shall be identified with a unique name which shall be displayed to the User whenever the OASIS Template is accessed.
- b. **Transfer Protocol:** OASIS Templates are transferred using the HTTP protocol. Templates shall support both the "GET" and "POST" methods for transferring "query string" name/value pairs, as well as the OASIS specific "comma separated value" (CSV) format for posting and

retrieval of information from OASIS Nodes. HTML screens and forms shall be implemented for each OASIS Template.

- c. **Source Information:** Each OASIS Template shall identify the source of its information by including or linking to the name of the Primary Provider, the Secondary Provider, or the Customer who provided the information.
- d. **Time Of Last Update:** Each OASIS Template shall include a time indicating when it was created or whenever the value of any Data Element was changed.
- e. **Data Elements:** OASIS Templates shall define the elementary Data Element Dictionary names for the data values to be transferred or displayed for that Template.
- f. **Documentation:** OASIS Information shall be in non-cryptic English, with all mnemonics defined in the Data Element Dictionary or a glossary of terms. TSIPs shall provide on-line descriptions and help screens to assist Users understanding the displayed information. Documentation of all formats, contents, and mnemonics shall be available both as displays and as files that can be downloaded electronically. In order to meet the "User-Friendly" goal and permit the flexibility of the OASIS Nodes to expand to meet new requirements, the OASIS Templates shall be as self-descriptive as possible.

#### 4.2.3.2 Template Categories

OASIS Templates are grouped into the following two major categories:

- a. **Query/Response:** These Templates are used to query and display information posted on an OASIS Node. Each query/response Template accepts a set of user specified Query Variables and returns the appropriate information from data posted on the OASIS Node based on those Query Variables. The valid Query Variables and information to be returned in response are identified by Data Element in Section 4.3.
- b. **Input/Response:** These Templates are used to upload/input information on an OASIS Node. The required input information and information to be returned in response are identified by Data Element in Section 4.3, Template Descriptions.

#### 4.2.3.3 Template HTML Screens

Though the exact form and content of the HTML screens and forms associated with the OASIS Templates are not dictated by this document, the following guidelines shall be adhered to for all HTML screens and forms implemented on an OASIS Node:

- a. **Data Element Headings:** Data displayed in an HTML screen/form shall be labeled such that the associated data value(s) is(are) easily and readily identifiable as being associated with a particular OASIS Template Data Element. HTML "Hot-Links" or other pointer mechanisms

may be provided for Data Element headings in OASIS Templates which permit the User to access documentation describing the meaning, type, and format of the associated data.

- b. **Display Limitations:** HTML screens and forms shall be implemented in such a way to allow the display of all data specified for each OASIS Template. This may take the form of "wrapping" of lines of information on the screen, the use of horizontal and/or vertical scrolling, or the use of "Hot-Links" or other pointer mechanisms. There is not necessarily a one-to-one relationship between HTML screens implemented on OASIS Nodes, and their associated Template. However, all Template Data Elements shall be viewable through one or more HTML screens.
- c. **Template Navigation:** HTML "Hot-Links" or other pointer mechanisms may be provided to assist the navigation between screens/forms associated with related OASIS Templates.

#### 4.2.4 Query/Response Template Requirements

Retrieval of information posted on an OASIS Node is supported by the Query/Response Templates. The "query" identifies the OASIS Template and optionally supplies additional Data Elements that may be used to select specific information to be returned in the "response".

##### 4.2.4.1 Query Requirements

Query information is transferred to an OASIS Node using the HTTP protocol as a string of Query Variables in the form of name/value pairs. Query Variable name/value pairs are specified as a collection of encoded strings (e.g., blank characters replaced by plus (+) character, etc.) in the form of **name=value**, with each name/value pair separated by ampersands (&) (see section 4.2.6). OASIS Nodes shall support the following methods for Users to input Query information:

- a. **HTML:** HTML FORM input and/or hypertext links shall be provided to allow Users to specify OASIS Template Query Variables. This will be the easiest way to obtain information and should be the choice of most casual Users and for simple requests. The exact nature and form of these HTML screens are not specified, and may differ between OASIS Nodes.
- b. **GET Method:** The HTTP GET method for specifying query information appended to a standard OASIS URL shall be supported. Using this method, the **name=value** formatted Query Variables preceded by a question mark (?) are appended to the URL. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.
- c. **POST Method:** The HTTP POST method for specifying query information in the message body shall be supported. Using this method, the **name=value** formatted Query Variables shall be transferred to an OASIS Node using the "**Content-length:**" HTTP header to define the

length in bytes of the encoded query string and the "**Content-type: application/x-www-form-urlencoded**" HTTP header to identify the data type included in the message body. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. An OASIS Node shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

User queries using any of the above methods are supported directly by the User's web browser software. More sophisticated data transfer mechanisms, such as the automated querying of information based on Query Variable strings contained in a User data file (i.e., "uploading a file containing a URL string), require appropriate software (e.g., "fetch\_http") running on the User's computer system to effect the data transfer.

#### 4.2.4.2 Response Requirements

In response to a validly formatted Query for each Query/Response OASIS Template, the OASIS Node shall return the requested information in one of two forms based on the User specified OUTPUT\_FORMAT Query Variable:

- a. **HTML:** If the User requests the response to have the format of "HTML" (OUTPUT\_FORMAT=HTML) then the response from the OASIS Node shall be a web page using the HTML format. This shall be the default for all Query/Response Templates.
- b. **CSV Format:** Comma Separated Value (CSV) format (OUTPUT\_FORMAT=DATA) returns the requested information in the body of the HTTP response message. The "**Content-length:**" HTTP header shall define the length in bytes of the response, and the "**Content-type: text/x-oasis-csv**" HTTP header shall be used to identify the data type included in the message body (see CSV File Format).

## 4.2.5 Input/Response Template Requirements

Input/Response Templates support the posting of information on an OASIS Node, including reservations for transmission/ancillary service and services for sale on the secondary market, etc. The "input" identifies the required data associated with an OASIS Template to be posted on the OASIS Node, and the "response" specifies the information returned to the User.

### 4.2.5.1 Input Requirements

Input information is transferred to an OASIS Node using the HTTP protocol as either a string of Query Variables in the form of name/value pairs, or as a Comma Separated Value (CSV) message. Query Variable name/value pairs are specified as a collection of encoded strings (e.g., blank characters replaced by plus (+) character, etc.) in the form of **name=value**, with each name/value pair separated by ampersands (&). CSV formatted messages are specified in the body of an HTTP message as a series of Data Records preceded by a fixed set of header records (see section 4.2.7).

OASIS Nodes shall support the following methods for Users to transfer Input data:

- a. **HTML:** HTML FORM input shall be provided to allow Users to specify the necessary Input data associated with each Input/Response OASIS Template. This may be in the form of fill in blanks, buttons, pull-down selections, etc., and may use either the GET or POST methods. The exact nature and form of these HTML screens are not specified, and may differ between OASIS Nodes.
- b. **GET Method:** The HTTP GET method for specifying Input information in the form of a query string appended to a standard OASIS URL shall be supported. Using this method, the **name=value** formatted Query Variables preceded by a question mark (?) are appended to the URL. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.
- c. **POST Method:** The HTTP POST method for specifying Input information in the form of a query string in the message body shall be supported. Using this method, the **name=value** formatted Query Variables shall be transferred to an OASIS Node using the "**Content-length:**" HTTP header to define the length in bytes of the encoded query string and the "**Content-type: application/x-www-form-urlencoded**" HTTP header to identify the data type included in the message body. Each "name" in a name/value pair corresponds to a Data Element name associated with that Template. OASIS Nodes shall support the specification of all Data Elements associated with a Template by both their full name and alias as defined in the Data Dictionary. The "value" in a name/value pair represents the value to be associated with the Data Element being specified in the appropriate format as defined in the Data Dictionary and encoded according to the HTTP protocol.

- d. **CSV Format:** Comma Separated Value (CSV) formatted Input information transferred in the body of a User's HTTP message shall be supported. The "**Content-length:**" HTTP header shall define the length in bytes of the Input, and the "**Content-type: text/x-oasis-csv**" HTTP header shall be used to identify the data type included in the message body.

#### 4.2.5.2 Response to Input

In response to a validly formatted Input for each Input/Response OASIS Template, the OASIS Node shall return an indication as to the success/failure of the requested action. The OASIS Node shall respond to the Input in one of two forms, based on the OUTPUT\_FORMAT, which was input by a User either as a Query Variable or in a CSV format Header Record:

- a. **HTML:** If the User requests the response to have the format of "HTML" (OUTPUT\_FORMAT=HTML) then the response from the OASIS Node shall be a web page using the HTML format. This shall be the default for all Input/Response Templates invoked using either the FORM, GET or POST methods of input.
- b. **CSV Format:** Comma Separated Value (CSV) format (OUTPUT\_FORMAT=DATA) returns the response information in the body of the HTTP response message. The "**Content-length:**" HTTP header shall define the length in bytes of the response, and the "**Content-type: text/x-oasis-csv**" HTTP header shall be used to identify the data type included in the message body. This shall be the default for all Input/Response Templates invoked using the CSV Format methods of input.

#### 4.2.6 Query Variables

##### 4.2.6.1 General

Both Query/Response and Input/Response OASIS Templates shall support the specification of a query string consisting of Query Variables formatted as name/value pairs. OASIS Nodes shall support the specification of Data Element names ("name" portion of **name=value** pair) in both the full name and alias forms defined in the Data Dictionary. OASIS Nodes shall support the specification of Query Variables from the User using either the HTTP GET or POST methods. On input, Data Element names and associated values shall be accepted and processed without regard to case. On output, Data Element names and associated values may not necessarily retain the input case, and could be returned in either upper or lower case.

##### 4.2.6.2 Standard Header Query Variables

The following standard Query Variable Data Elements shall be supported for all OASIS Templates and must be entered for each Query by a User:

VERSION  
TEMPLATE  
OUTPUT\_FORMAT

PRIMARY\_PROVIDER\_CODE  
PRIMARY\_PROVIDER\_DUNS

RETURN\_TZ

Since these header Query Variables must be supported for all Templates, they are not listed explicitly in the Template descriptions in Section 4.3

The User must enter all standard Header Query Variables with appropriate values.

#### **4.2.6.3 Responses to Queries**

Responses to Queries will include the following information as a minimum:

TIME\_STAMP  
VERSION  
TEMPLATE  
OUTPUT\_FORMAT  
PRIMARY\_PROVIDER\_CODE  
PRIMARY\_PROVIDER\_DUNS  
RETURN\_TZ

The additional information shall include:

- a. The requested information as defined by the Template indicated in the Query
- b. For CSV downloads, the additional header Data Elements required (see section 4.2.7.3)

#### **4.2.6.4 Multiple Instances**

Certain Query Variables may be repeated in a given Query/Response OASIS Template query string. Such multiple instances are documented in the Template definitions using an asterisk (\*) after the Query Variable. When more than one instance of the Query Variable is specified in the query string, OASIS Nodes shall recognize such multiple instances by either the Data Element's full name or alias suffixed with sequential numeric qualifiers starting with the number 1, (e.g., PATH\_NAME1=abc&PATH\_NAME2=xyz, or PATH1=abc&PATH2=xyz). At least 4 multiple instances will be permitted for each Query Variable marked with an asterisk (\*).

#### **4.2.6.5 Logical Operations**

OASIS Nodes shall use the following logical operations when processing Query Variables for Query/Response OASIS Templates. All Query Variables, with the exception of multiple instances of the same Query Variable Data Element, shall be operated on to return information based on the logical-AND of those Query Variables. For example, the query string "SELLER\_CODE=abc &PATH=xyz" should return information associated with only those records that are on transmission path "xyz" AND associated with transmission provider "abc." Multiple instances of the same Query Variable shall be

operated on as logical-OR. For example, "SELLER\_CODE=abc &PATH1=xyz&PATH2=opq" should return information associated with transmission provider "abc" AND either transmission path "xyz" OR transmission path "opq". Some logical operations may exclude all possibilities, such that the responses may not contain any data.

#### **4.2.6.6 Handling of Time Data Elements**

In cases where a single Query Variable is provided to select information associated with a single Template Data Element (e.g., TIME\_OF\_LAST\_UPDATE), OASIS Nodes shall return to the User all requested information whose associated Data Element time value (e.g. TIME\_OF\_LAST\_UPDATE) is equal to or later than the value specified by the Query Variable. In this case the stop time is implicitly "now".

A pair of Query Variables (e.g. START\_TIME\_QUEUED and STOP\_TIME\_QUEUED) that represents the start and stop of a time interval but is associated with one single Template Data Element (e.g. TIME\_QUEUED) shall be handled by OASIS Nodes to return to the User all requested information whose associated Data Element time value falls within the specified time interval.

A pair of Query Variables (e.g. START\_TIME and STOP\_TIME Query Variables) that represents the start and stop of one time interval but is associated with another pair of Template Data Elements (e.g. START\_TIME and STOP\_TIME of a service offering) that represents a second time interval, shall be handled by OASIS Nodes to return to the User all requested information whose associated Data Element time interval overlaps any portion of the specified time interval. Specifically, the START\_TIME Query Variable selects all information whose STOP\_TIME Data Element value is later than the START\_TIME Query Variable, and the STOP\_TIME Query Variable selects all information whose START\_TIME Data Element value is earlier than the STOP\_TIME Query Variable. For example:

The transoffering Template query string "START\_TIME 970101000000ES&STOP\_TIME 970201000000ES" shall select from the OASIS database all associated offerings whose start/stop times overlap any portion of the time from 00:00 January 1, 1997, to 00:00 February 1, 1997. This would include offerings that (1) started prior to Jan. 1 and stopped any time on or after Jan. 1, and (2) started on or after Jan 1 but before Feb 1

For changes to and from daylight savings time, either Universal Time or the correct time and zone must be used, based on whether daylight savings time is in effect.

All time values shall be checked upon input to ensure their validity with respect to date, time, time zone, and daylight savings time.

#### **4.2.6.7 Default Values**

Query Variables that are not specified by the User may take on default values as appropriate for that Query Variable at the discretion of the OASIS TSIP.

#### 4.2.6.8 Limitations on Queries

OASIS TSIP may establish validation procedures and/or default values for Query Variables to restrict the size and/or performance impact of overly broad queries.

#### 4.2.7 CSV Format

##### 4.2.7.1 General Record Format

OASIS Users shall be able to upload information associated with Input/Response OASIS Templates and download information associated with all OASIS Templates using a standardized Comma Separated Value (CSV) format. CSV formatted data is transferred to/from OASIS Nodes as part of the body of an HTTP message using the "**Content-length:**" HTTP header to define the length in bytes of the message body, and the "**Content-type: text/x-oasis-csv**" HTTP header to identify the data type associated with the message body. CSV formatted data consists of a fixed set of header records followed by a variable number of Data Records. Each record shall be separated by a carriage return plus line feed (denoted by the symbol `\r\n` in all examples). The fields within a record shall be delimited by commas (.). All data within a CSV formatted message shall use printable ASCII characters with no other special embedded codes, with the exception of the special encoding requirements associated with text fields.

##### 4.2.7.2 Input Header Records

The following standard header records are required for the uploading of Input data for all Input/Response OASIS Templates:

```
VERSION=nn.n\r\n
TEMPLATE=aaaaaaaaa\r\n
OUTPUT_FORMAT=[DATA] \r\n
PRIMARY_PROVIDER_CODE=aaaa\r\n
PRIMARY_PROVIDER_DUNS=nnnnnnnnn\r\n
RETURN_TZ=aa\r\n
DATA_ROWS=nnn\r\n
COLUMN_HEADERS=[Template Data Element names separated by commas]\r\n
```

The format of the value associated with each of the Input header record Data Elements are dictated by the Data Dictionary.

The value associated with the DATA\_ROWS Data Element shall define the total number of Data Records that follow in the message after the COLUMN\_HEADERS record.

The COLUMN\_HEADERS record defines, by Data Element name, the data associated with each comma separated column contained in each subsequent Data Record (row). On Input, either the Data Element's full name or alias listed in the Data Dictionary may be specified.

#### 4.2.7.3 Response Header Records

When explicitly specified using the OUTPUT\_FORMAT=DATA Query Variable or implied by the Input of a CSV format message, the OASIS Nodes shall respond with the following standard response header records for all OASIS Templates:

```
REQUEST_STATUS=nnn␣
ERROR_MESSAGE=aaa␣
TIME_STAMP=yyyymmddhhmmsstz␣
VERSION=nn.n␣
TEMPLATE=aaaaaaaaa␣
OUTPUT_FORMAT=DATA␣
PRIMARY_PROVIDER_CODE=aaaa␣
PRIMARY_PROVIDER_DUNS=nnnnnnnnn␣
RETURN_TZ=tz␣
DATA_ROWS=nnn␣
COLUMN_HEADERS=[Template Data Element names separated by commas]␣
```

The format of the value associated with each of the Response header record Data Elements are dictated by the Data Dictionary.

The value associated with the DATA\_ROWS Data Element shall define the total number of Data Records returned in the message following the COLUMN\_HEADERS header record.

The COLUMN\_HEADERS record defines, by Data Element name, the data associated with each comma-separated column contained in each subsequent Data Record (row). In all OASIS Node responses, the Data Element's full name shall be listed in the COLUMN\_HEADERS record. The order of the column headings shall be the same as shown in the Templates for URL uploads and downloads. For graphical displays, the Provider may define the order that the Data Element names are shown.

#### 4.2.7.4 Data Records

Data Records immediately follow the standard Input or Response header records. With the exception of Data Records grouped together as a single "logical record" through the use of Continuation Records, each Data Record in a CSV formatted Input message represents a single, complete execution of the associated OASIS Template. That is, sending five CSV formatted Input messages for a given Template to the same PRIMARY\_PROVIDER\_CODE with a single Data Record per message shall be handled in exactly the same fashion as sending a single CSV formatted Input message for the same Template and PRIMARY\_PROVIDER\_CODE which contains five Data Records.

Each field (column) within each Data Record defines the value to be associated with the corresponding Data Element defined in the COLUMN\_HEADERS record. The number of Data Records in the message is defined by the DATA\_ROWS header record. The data values associated with each column Data Element are interpreted based on the Data Element type as defined in the Data Dictionary:

- a. **Numeric Data Elements:** All numeric Data Elements shall be represented by an ASCII string of numeric digits in base ten, plus the decimal point.
- b. **Text Data Elements:** Alphabetic and alphanumeric Data Elements shall be represented as ASCII strings and encoded using the following rules:
  - Text strings that do not contain commas (,) or double quotes (") shall be accepted both with and without being enclosed by double quotes.
  - Text fields with commas (,) or double quotes (") must be enclosed with double quotes. In addition double quotes within a text field shall be indicated by two double quotes ("").
  - The Data Element field length specified in Data Dictionary does not include the additional double quotes necessary to encode text data.
- c. **Null Data Elements:** Null Data Elements shall be represented by two consecutive commas (,,) corresponding to the leading and trailing (if appropriate) Data Element comma separators. Null text strings may optionally be represented by two consecutive double quote characters within the leading and trailing comma separators (i.e., "",,...).

#### 4.2.7.5 Continuation Records

Continuation records shall be used to indicate that the information in multiple rows (records) is part of one logical record. Continuation records will be indicated through the use of a column header called CONTINUATION\_FLAG. This column header is either the first column (if in a response to a query) or second column (if in a response to an input) in all Templates permitting continuation records. The first record shall contain an "N" in the CONTINUATION\_FLAG column and each following record which is part of a continuation record shall contain a "Y" in this column, thus associating the information in that record with the information in the previous record. An "N" shall indicate that the record is not a

continuation record. In addition to the CONTINUATION\_FLAG Data Element identifying that a record is associated with a previous record, any unique record identifier associated with the first (CONTINUATION\_FLAG = N) record shall be repeated in all subsequent continuation records returned in an OASIS response. Each Template that supports the use of continuation records and those particular Data Elements (COLUMN\_HEADERS) that may be referenced in one or more continuation records are identified in Section 4.3.

On upload or input of Template data, any values supplied via continuation records that correspond to COLUMN\_HEADERS other than those explicitly allowed to appear in continuation records for a particular Template shall be ignored. However commas must be included to properly align the fields (columns). Note that the submission of continuation records is only supported by the CSV Format method of uploading data to an Input/Response Template

#### **4.2.7.6 Error Handling in CSV-Formatted Responses**

Validity of each record in the CSV-formatted Response to a Template Input shall be indicated through the use of RECORD\_STATUS and ERROR\_MESSAGE Data Elements which are included in each Data Record (row) of the Response.

- If no error was encountered in an Input Data Record, the RECORD\_STATUS Data Element in the corresponding Response record shall be returned with a value of 200 (success), and the ERROR\_MESSAGE shall be blank.
- If any error is detected in processing an Input Data Record, it shall be indicated by a RECORD\_STATUS Data Element value other than 200. The ERROR\_MESSAGE shall be set to an appropriate text message to indicate the source of the error in that Data Record.

The overall validity of each Template Query or Input shall be indicated in the CSV-formatted Response via the two REQUEST\_STATUS and ERROR\_MESSAGE header records (see section 4.2.7.3):

- \_ If no errors were encountered in processing the User's Input Data Records, the REQUEST\_STATUS shall be returned with the value of 200 (success), and the ERROR\_MESSAGE shall be blank.
- \_ If any errors were detected in the Template Input Data Records, the REQUEST\_STATUS value shall be any value other than 200, and the ERROR\_MESSAGE shall be set to an appropriate text message to indicate the source of the error.

The OASIS Node shall validate all Input records before returning a Response to the User. The Node shall process all valid records, while invalid records shall be identified as erroneous through the use of RECORD\_STATUS and ERROR\_MESSAGE. The User must correct the invalid fields and resubmit only those records that were invalid. If an error is encountered in a record which is part of a set of Continuation records, then all records belonging to that set must be resubmitted.

## 4.2.8 Registration Information

### 4.2.8.1 General

As specified in the Information Access Requirements, OASIS Nodes shall provide a mechanism to register Users of the OASIS Node with a Provider. For all levels of access to OASIS information beyond simple read-only access, OASIS Nodes shall provide a mechanism to identify Users of the OASIS at least to the level of their respective Companies. The OASIS Node shall maintain both Company and User registration information.

### 4.2.8.2 Company Information

OASIS Templates require that certain Company registration information be maintained. As an extension of the Company registration information of the host, domain and port identifiers for dynamic notification of changes in the Customer's purchase requests, a field should be added to the Company's registration information that would define/identify how notification would be delivered to that Company should a transmission or ancillary purchase request be directed to that Company as a Seller of a transmission or ancillary service. The pertinent information would be either a full HTTP protocol URL defining the protocol, host name, port, path, resource, etc. information or a "mailto:" URL with the appropriate mailbox address string. On receipt of any purchase request directed to that Company as SELLER via either the "transrequest" or "ancrequest" Templates, or on submission of any change in request information submitted to that Company as SELLER via either the "transcust" or "anccust" Templates, a notification message formatted as documented for the delivery of notification to the Customer, shall be formatted and directed to the Seller. At a minimum, OASIS Nodes shall maintain the following information for each Company:

- a. **Company Code:** 4 character code for primary transmission providers; 6 character code for eligible customers in accordance with NERC Tagging Information System (TIS) requirements shall be maintained for each Company.
- b. **Default Contact:** Unless specified for each individual user affiliated with the Company, default contact information consisting of a phone number, fax number, and e-mail address shall be maintained for each Company.
- c. **Provider Affiliation:** Each eligible Customer shall be obligated to identify to the OASIS TSIP any affiliation with a Transmission Provider whose "home page" is on that OASIS Node.

- d. **Notification URL:** For Companies using the URL notification mechanism for delivery of messages on each change of ancillary/transmission reservation STATUS, each Company shall provide the IP host name and port number to be used in delivering notification messages. OASIS Nodes shall have the right to refuse support for notification to any IP ports other than port 80.

#### **4.2.8.3 User Information**

With the exception of "read-only" (visitor) access, OASIS Nodes shall, at a minimum, provide a mechanism to identify Users of the Node with at least their Company. However, OASIS Nodes and Providers shall have the right to require full User identification even for visitor accounts.

To support the required OASIS Template Data Elements, OASIS Nodes shall maintain the following information for each registered User:

- Company
- Name
- Phone
- Fax
- E-mail

In the event no additional User identification/registration information is maintained by the OASIS Nodes, all Template Data Elements referring to "company, name, phone, fax, e-mail" for either Customers or Sellers shall default to the Contact Information maintained for that User's Company.

#### **4.2.9 Representation of Time**

##### **4.2.9.1 General**

It is critical that all Users of OASIS Nodes have a clear and unambiguous representation of time associated with all information transferred to/from OASIS Nodes. For this reason, all Data Elements associated with time in OASIS Nodes shall represent "wall clock" times, which are NOT to be confused with other common industry conventions such as "hour ending." For the convenience of the User community, OASIS Nodes shall be allowed to accept the input and display of "time" in any acceptable form provided such non-standard representations are CLEARLY labeled on the associated HTML screens. Alternate representations of time in CSV formatted messages shall not be allowed.

The following rules shall be implemented in OASIS Nodes for the representation of time on User entries (Query and Input) and output (Response) Templates.

##### **4.2.9.2 Input Time**

All time related Data Elements associated with either the Input or Query of Input/Response or Query/Response OASIS Templates shall be validated according the following rules. If the time zone associated with a time Data Element is associated with either Universal Time (UT) or a "standard" time zone (e.g., ES, CS, etc.), OASIS Nodes shall accept and apply a fixed hour offset from Universal Time

year-round. If the time zone associated with a time Data Element is specified with a "daylight savings" time zone (e.g. ED, CD, etc.), OASIS Nodes shall verify that daylight savings time is in effect for the date/time specified.

If daylight savings time (as specified by the time from 2:00am on the first Sunday of April through 2:00 am on the last Sunday of October) is not in effect, the Users input shall be rejected with an error response. If daylight savings time is in effect, the Users input shall be accepted and the appropriate hours offset from Universal Time shall be applied by OASIS Nodes for conversion to all other time zones. The input of start/stop times for transactions spanning the crossover day between standard and daylight (and vices versa) times must be made either entirely in standard time (valid year-round), or in two different time zones (xS/xD or xD/xS) for the start and stop times, depending on the time of year.

#### **4.2.9.3 Output (Response) Time**

The OASIS Node shall return all time Data Elements in the response to Input/Response or Query/Response OASIS Templates based on either the User specified RETURN\_TZ header Query Variable or an appropriate OASIS specific default. OASIS Nodes shall interpret RETURN\_TZ to specify:

- a. The base time zone for conversion of all time Data Elements (e.g. Eastern, Pacific, etc.)
- b. Whether daylight savings time is recognized. For example, a RETURN\_TZ=ES would return all time Data Elements in Eastern Standard Time year-round. However, a RETURN\_TZ=ED would direct OASIS Nodes to return all time Data Elements in Eastern Standard Time (ES) when daylight savings time is not in effect, and then return all time Data Elements in Eastern Daylight Time (ED) when daylight time is in effect.

#### **4.2.10 Transaction Process**

OASIS shall implement Templates that allow Customers and Sellers to enter, modify and consummate arrangements for transmission and ancillary services. The following subsections outline the basic steps for arranging for these services. Section 4.2.13 provides further detail on the use of OASIS Templates to modify the terms of a transaction in support of specific provisions of the Open Access ProForma Tariff.

##### **4.2.10.1 Purchase Transactions**

Customers shall purchase services from the Seller using the following basic steps (see Exhibit 4-1):

- a. The Templates (*transrequest* and *ancrequest*) shall be used by a Customer to enter a request for specific transmission or ancillary services from a specific Seller. Basic requests for transmission services from the Primary Transmission Provider shall be assigned a REQUEST\_TYPE of "ORIGINAL"; requests for transmission services on the secondary market (where SELLER is not the Primary Transmission Provider) shall be assigned a REQUEST\_TYPE of "RESALE" (Section 4.2.13 documents other values that may be assigned

to REQUEST\_TYPE).

The Customer may enter a BID\_PRICE which is different from the OFFER\_PRICE in order to try to negotiate a lower price. The OASIS Node sets the initial STATUS of the request to QUEUED. The Customer may set the STATUS\_NOTIFICATION to indicate that the OASIS Node must notify the Customer on any change in the request's STATUS or related Data Elements (see Dynamic Notification).

The Customer may designate the request as PRECONFIRMED. Preconfirmed requests will be automatically set to the STATUS of CONFIRMED when ACCEPTED by the Seller without requiring an explicit confirmation from the Customer. Prior to or commensurate with a Seller's setting of a preconfirmed reservation request's STATUS to ACCEPTED (and by implication CONFIRMED), the Seller must set OFFER\_PRICE equal to the value of BID\_PRICE as established by the Customer on submission of the request.

- b. The Templates (*transstatus* and *ancstatus*) shall be used by Customers and Sellers to monitor the status of their transactions in progress. These Templates shall also be used by any Users to review the status of any transactions. The NEGOTIATED\_PRICE\_FLAG Data Element is set when the Seller agrees to a BID\_PRICE (by setting OFFER\_PRICE equal to BID\_PRICE) that is different from the previously posted price. It will show "higher" when OFFER\_PRICE is higher than the posted price, and "lower" when the OFFER\_PRICE is lower than the posted price.
- c. The Templates (*transsell* and *ancsell*) shall be used by a Seller to set a new value into STATUS, to enter a MW value in CAPACITY\_GRANTED, if offering partial service, and to negotiate a price by entering a new OFFER\_PRICE which is different from the BID\_PRICE entered by the Customer in the *transrequest* Template. During these negotiations, a Reseller shall formally indicate the approval or disapproval of a transaction and indicate which rights from prior confirmed reservations are to be reassigned. A Primary Provider may, but is not required, to enter transaction approval or disapproval using this Template.

In the event the Seller is only able to grant a portion of the transmission capacity requested by the Customer and the Seller is obligated or elects to extend an offer for partial service, the Seller shall indicate to the Customer the amount of capacity available using CAPACITY\_GRANTED and set the reservation request's status to COUNTEROFFER. Preconfirmed requests that are set to COUNTEROFFER due to an offer of service at a level lower than requested by the Customer shall require explicit confirmation by the Customer. The valid STATUS values which may be set by a Seller are: RECEIVED, INVALID, STUDY, COUNTEROFFER, ACCEPTED, REFUSED, SUPERSEDED, DECLINED, DISPLACED, ANNULLED, or RETRACTED.

- d. The Customer shall use the *transstatus* and *ancstatus* Templates to view the Seller's new offer price, partial service offer and/or approval/disapproval decision.

- e. After receiving notification of the transaction's STATUS being set to COUNTEROFFER by the Seller, the Templates (*transcust* and *anccust*) shall be used by the Customer to modify the BID\_PRICE and set the STATUS to REBID or CONFIRMED. *Transcust* shall also be used to confirm an offer for partial service (where CAPACITY\_GRANTED is less than CAPACITY\_REQUESTED) by setting the STATUS to CONFIRMED. After negotiations are complete (STATUS set to ACCEPTED by the Seller), the Customer shall formally enter the confirmation or withdrawal of the offer to purchase services for the OFFER\_PRICE shown in the *transstatus* Template. The valid STATUS values which a Customer may set are: REBID, CONFIRMED, or WITHDRAWN.
- f. The Seller shall use the *transstatus (ancstatus)* Template to view the Customer's new bid price and/or confirmation/withdrawal decision, again responding through *transsell* or *ancsell* if necessary. If the Seller offers to sell a service at an OFFER\_PRICE less than that posted in the *transoffering (ancoffering)* Template, the *transoffering (ancoffering)* Template must be updated to reflect the new OFFER\_PRICE.
- g. For deals consummated off the OASIS Nodes by a Seller, after the Customer has accepted the offering, the Templates (*transassign* and *anccassign*) may be used by the Seller to notify the Primary Provider of the transfer of rights to the Customer. Continuation records may be used to indicate the reassigning of rights for a "profile" of different assignments and different capacities over different time periods.
- h. The source of all User and Seller contact information shall be the User registration process. Therefore, it shall not be input as part of uploads, but shall be provided as part of all transaction downloads.
- i. OASIS Nodes shall accept a Seller initiated change in STATUS to ACCEPTED only when OFFER\_PRICE matches BID\_PRICE (i.e., Seller must set OFFER\_PRICE equal to BID\_PRICE prior to or coincident with setting STATUS to ACCEPTED).
- j. OASIS Nodes shall accept a Customer initiated change in STATUS to CONFIRMED only when BID\_PRICE matches OFFER\_PRICE (i.e., Customer must set BID\_PRICE equal to OFFER\_PRICE prior to or coincident with setting STATUS to CONFIRMED).
- k. If CAPACITY\_GRANTED is null when STATUS is being changed to ACCEPTED or CONFIRMED, the OASIS Node shall set it equal to CAPACITY\_REQUESTED.

#### 4.2.10.2 Status Values

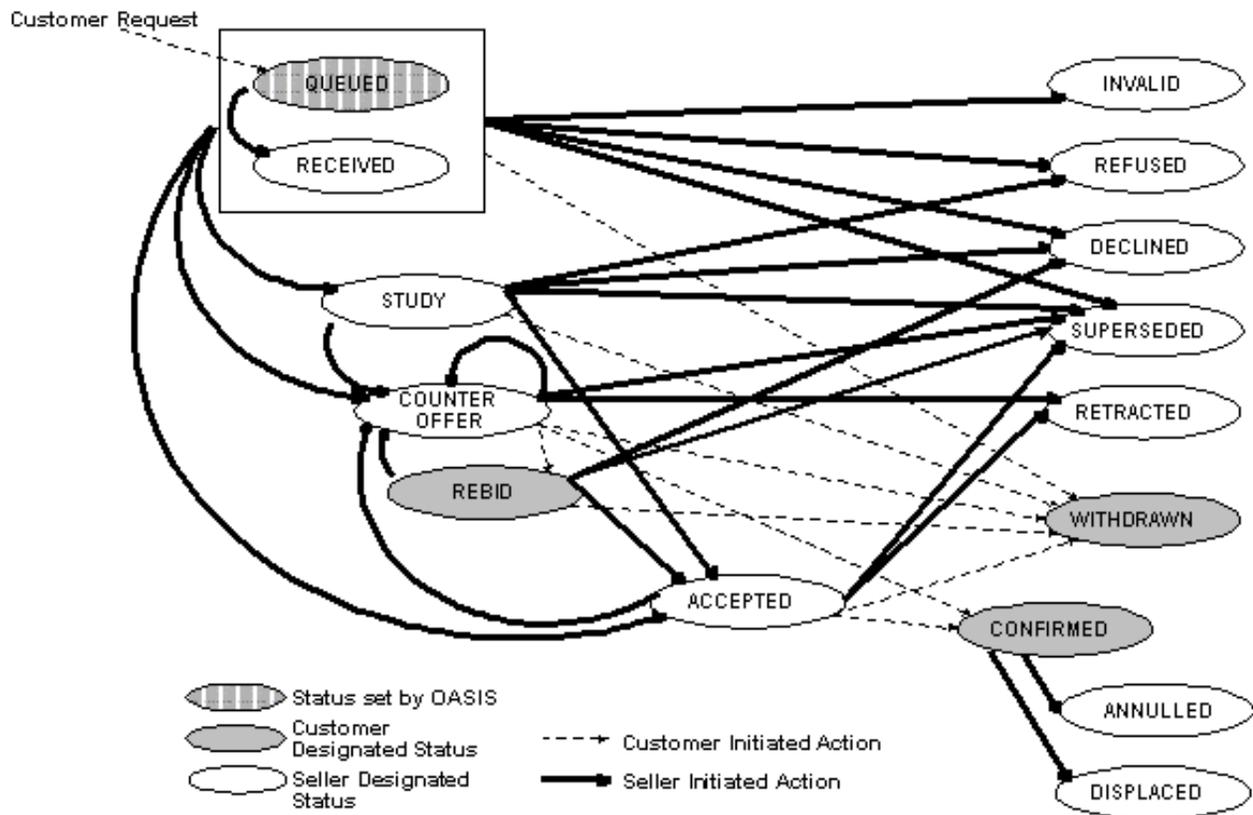
The possible STATUS values are:

QUEUED = initial status assigned by TSIP on receipt of "customer services purchase request".

INVALID =	assigned by TSIP or Provider indicating an invalid field in the request, such as improper POR, POD, source, sink, etc. (Final state).
RECEIVED=	assigned by Provider or Seller to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services.
STUDY=	assigned by Provider or Seller to indicate some level of study is required or being performed to evaluate service request.
REFUSED =	assigned by Provider or Seller to indicate service request has been denied due to lack of availability of transmission capability. (Final state).
COUNTEROFFER=	assigned by Provider or Seller to indicate that a new OFFER_PRICE is being proposed or that CAPACITY_GRANTED is less than CAPACITY_REQUESTED.
REBID =	assigned by Customer to indicate that a new BID_PRICE is being proposed.
SUPERSEDED =	assigned by Provider or Seller when a request which has not yet been confirmed is preempted by another reservation request. (Final state).
ACCEPTED =	assigned by Provider or Seller to indicate the service request at the designated OFFER_PRICE and CAPACITY_GRANTED has been approved/accepted. If the reservation request was submitted PRECONFIRMED and CAPACITY_GRANTED is equal to CAPACITY_REQUESTED, the OASIS Node shall immediately set the reservation status to CONFIRMED. Depending upon the type of ancillary services required, the Seller may or may not require all ancillary service reservations to be completed before accepting a request.
DECLINED =	assigned by Provider or Seller to indicate that the terms and conditions, such as the BID_PRICE, are unacceptable and that negotiations are terminated or that contractual terms and conditions have not been met. (Final state).
CONFIRMED=	assigned by Customer in response to Provider or Seller posting "ACCEPTED" status, to confirm service. Once a request has been "CONFIRMED", a transmission service reservation exists. (Final state, unless overridden by DISPLACED or ANNULLED state).

WITHDRAWN=	assigned by Customer at any point in request evaluation to withdraw the request from any further action. (Final state).
DISPLACED=	assigned by Provider or Seller when a "CONFIRMED" reservation from a Customer is displaced by a higher priority reservation and the Customer is not offered or has not exercised right of first refusal (i.e. refused to match terms of new request). (Final state).
ANNULLED=	assigned by Provider or Seller when, by mutual agreement with the Customer, a confirmed reservation is to be voided. (Final state).
RETRACTED=	assigned by Provider or Seller when the Customer fails to confirm or withdraw the request within the required time period. (Final state).

The following diagram can be used as a business process guideline; however, individual tariffs will dictate specific allowed actions between states.



**Exhibit 4-1 - State Diagram of Purchase Transactions**

### **4.2.10.3 Dynamic Notification**

Customers may specify the delivery of dynamic notification messages on each change in STATUS or any other Data Element(s) associated with an ancillary or transmission service reservation. OASIS Nodes shall support the delivery of dynamic notification messages through either the HTTP protocol or by electronic mail. The selection of which mechanism is used and the contents of the messages delivered to the client program or e-mail address is defined by the content of the STATUS\_NOTIFICATION Data Element as described in the next subsections.

Regardless of whether this dynamic notification method is used or not, it shall still remain the User's responsibility to get the desired information, possibly through the use of a periodic "integrity request". OASIS Nodes shall not be obligated or liable to guarantee delivery/receipt of messages via the STATUS\_NOTIFICATION mechanism other than on a "best effort" basis.

As an extension of the Company registration information of the host, domain and port identifiers for dynamic notification of changes in the Customer's purchase requests, a field should be added to the Company's registration information that would define/identify how notification would be delivered to that Company should a transmission or ancillary purchase request be directed to that Company as a Seller of a transmission or ancillary service. The pertinent information would be either a full HTTP protocol URL defining the protocol, host name, port, path, resource, etc. information or a "mailto:" URL with the appropriate mailbox address string. On receipt of any purchase request directed to that Company as SELLER via either the "transrequest" or "ancrequest" Templates, or on submission of any change in request STATUS (or any other Data Elements associated with the request) to that Company as SELLER via either the "transcust" or "anccust" Templates, a notification message formatted as documented for the delivery of notification to the Customer, shall be formatted and directed to the Seller. This extension of dynamic notification is required only where the Transmission Provider has programmed its computer system for its own notification.

#### **4.2.10.3.1 HTTP Notification**

OASIS Nodes shall deliver dynamic notification to a client system based on HTTP URL information supplied in part by the STATUS\_NOTIFICATION Data Element and by information supplied as part of the Customer's Company registration information. HTTP URL's are formed by the concatenation of a protocol field (i.e., http: ), a domain name (e.g., //www.tsin.com), a port designation (e.g., :80), and resource location information.

The STATUS\_NOTIFICATION Data Element shall contain the protocol field "http:", which designates the notification method/protocol to be used, followed by all resource location information required; the target domain name and port designations shall be inserted into the notification URL based on the Customer's Company registration information. The resource location information may include directory information, cgi script identifiers and URL encoded query string name/value pairs as required by the Customer's application. An OASIS Node performs no processing on the resource location information other than to include it verbatim along with the protocol, domain name and port information when forming the URL that will be used to deliver the HTTP protocol notification message.

For example, Company XYZ has established the domain name and port designations of "oasistc.xyz.com:80" as part of their registration information.

When a transmission reservation is submitted by one of Company XYZ's users (the Customer), and includes a STATUS\_NOTIFICATION Data Element with the value of "http://cgi-bin/status?DEAL\_REF=8&REQUEST\_REF=173", an OASIS Node shall deliver an HTTP notification message using the URL:  
http://oasistc.xyz.com:80/cgi-bin/status?DEAL\_REF=8&REQUEST\_REF=173

If the STATUS\_NOTIFICATION field contained only the "http:" protocol designation, the notification message would be delivered using the URL: http://oasistc.xyz.com:80

The contents of the HTTP protocol notification message delivered by an OASIS Node shall consist of the complete URL created by combining fields from the STATUS\_NOTIFICATION Data Element and Company registration information as part of an HTTP POST method request. In addition to the POST method HTTP header record, OASIS Nodes shall also append the CSV formatted output of the transstatus Template information for that particular reservation using the standard Content-type: text/x-oasis-csv and appropriate Content-length: HTTP header records. OASIS Nodes shall use a Primary Provider specific default value for RETURN\_TZ in formulating the transstatus response information.

Continuing with the previous example, the important records in the HTTP notification message that would be delivered to Company XYZ for the transmission reservation request submitted to Primary Provider ABC and given an ASSIGNMENT\_REF of 245 would be,

```
POST http://oasistc.xyz.com:80/cgi-bin/status?DEAL_REF=8&REQUEST_REF=173
HTTP/1.0
.
.
Content-type: text/x-oasis-csv
Content-length: <byte count of remainder of message>
REQUEST_STATUS=200
TIME_STAMP=<appropriate value>
VERSION=1.4
TEMPLATE=transstatus
OUTPUT_FORMAT=DATA
PRIMARY_PROVIDER_CODE=ABC
PRIMARY_PROVIDER_DUNS=123456789
RETURN_TZ=<appropriate value for ABC>
DATA_ROWS=1
COLUMN_HEADERS=CONTINUATION_FLAG, ASSIGNMENT_REF, . . .
N, 245, . . .
```

In the event an error is encountered delivering the HTTP notification message to the target URL as indicated by a failure of the target system to respond, or return of HTTP response status of 408, 500, 503, or 504, OASIS Nodes shall retry up to two more times, once every 5 minutes.

#### **4.2.10.3.2 E-mail Notification**

OASIS Nodes shall deliver dynamic notification to an e-mail address based on Mailto: URL information specified in the STATUS\_NOTIFICATION Data Element. Mailto: URL's consist of the "mailto:" protocol identifier and an Internet mail address to which the notification message should be sent.

The STATUS\_NOTIFICATION Data Element shall contain the protocol field "mailto:", which designates the notification method/protocol to be used, followed by an Internet mail address in conformance with RFC 822. OASIS Nodes shall send an e-mail message to the Internet mail address containing the following information: "To:" set to the mail address from the STATUS\_NOTIFICATION Data Element, "From:" set to an appropriate mail address of the OASIS Node, "Subject:" shall be the transstatus Template name followed by the value of the ASSIGNMENT\_REF Data Element and the current value for the STATUS Data Element associated with the reservation (e.g., "Subject: transstatus 245 ACCEPTED"), and the body of the message shall contain the CSV formatted output of the transstatus Template information for that particular reservation. OASIS Nodes shall use a Primary Provider specific default value for RETURN\_TZ in formulating the transstatus response information.

#### **4.2.10.4 Use of Comments**

Transmission and ancillary service reservation templates support the following text data elements to be used to communicate information between parties (i.e., transmission provider, seller, and customer) to a transaction:

- PRIMARY\_PROVIDER\_COMMENTS - for information to be communicated by the primary transmission provider to all other parties
- SELLER\_COMMENTS - for information to be communicated by the seller (either primary provider or reseller) to the customer
- CUSTOMER\_COMMENTS - for information to be communicated by the customer to the seller
- STATUS\_COMMENTS - for information to be communicated by any party to all other parties

Use of these comments fields is at the discretion of the parties to the transaction with the exception that sellers of services must indicate via SELLER\_COMMENTS the reason for denial of any request for service (STATUS values of INVALID, REFUSED, or DENIED). Transactions which are subject to displacement, either before or after confirmation (STATUS values of SUPERSEDED or DISPLACED), shall also include a reference to the competing reservation request that initiated the displacement in the SELLER\_COMMENTS.

#### 4.2.11 Reference Identifiers

The TSIP shall assign a unique reference identifier, ASSIGNMENT\_REF, for each Customer request to purchase capacity or services. The value of ASSIGNMENT\_REF may be used to imply the order in which the request was received by the TSIP. This identifier will be used to track the request through various stages, and will be kept with the service through out its life. Whenever a transaction is modified by a subsequent transaction, a new ASSIGNMENT\_REF number is assigned to that subsequent transaction along with a reference to the previous transaction such that a chain of all transactions related to the service can be maintained. These changes create a parent/child relationship between related requests. The TSIP shall use REASSIGNED\_REF or RELATED\_REF as specified in section 4.2.13 to identify the parent request's ASSIGNMENT\_REF and shall increment the IMPACTED counter of the parent request by 1. Reductions to a request posted by the Transmission Provider shall also reference the requests ASSIGNMENT\_REF and the TSIP shall increment the IMPACTED counter of the request by 1.

The TSIP shall assign a unique reference identifier, POSTING\_REF, to each Seller's offerings of service for sale or other information (messages) posted on an OASIS Node. The Seller in any/all subsequent Template submissions, that would result in a modification to or deletion of that specific offering or message, shall reference this identifier. Optionally, Customers may also refer to this POSTING\_REF in their subsequent purchase requests to aid in identifying the specific offering associated with the purchase request.

Sellers may aggregate portions of several previous transmission service reservations to create a new offering to be posted on an OASIS Node. When all or a portion of such offerings are sold, the Seller (original Customer) is obligated to notify the Primary Provider of the sale/assignment by inserting appropriate reassignment information on the OASIS Node (via the *transsell* or *transassign* Templates) or by some other approved method. This reassignment information consists of the ASSIGNMENT\_REF value assigned to the original reservation(s) and the time interval and capacity amount(s) being reassigned to the new reservation. These values are retained in the REASSIGNED\_REF, REASSIGNED\_START\_TIME, REASSIGNED\_STOP\_TIME, and REASSIGNED\_CAPACITY Data Elements.

Sellers may identify their service offerings received from Customers through the Seller supplied value specified for the SALE\_REF Data Element.

Customers may track their purchase requests through the Customer supplied values specified for the DEAL\_REF and REQUEST\_REF Data Elements. Customers may also use POSTING\_REF and SALE\_REF in their purchase requests to refer back to posted offerings.

#### 4.2.12 Linking of Ancillary Services to Transmission Services

The requirements related to ancillary services are shown in *transoffering* (and updated using *transupdate*) using the ANC\_SVC\_REQ Data Element containing the following permitted values:

SC:x; RV:x; RF:x; EI:x; SP:x; SU:x;

where SC, RV, RF, EI, SP and SU are the ancillary services 1 through 6 described in the Proforma Tariff,

- SC - Scheduling, system Control and dispatch
- RV - Reactive supply and Voltage control
- RF - Regulation and Frequency response
- EI - Energy Imbalance
- SP - SPinning reserve
- SU - SUPplemental reserve

and where x={M,R,O,U} means one of the following:

- Mandatory, which implies that the Primary Provider must provide the ancillary service
- Required, which implies that the ancillary service is required, but not necessarily from the Primary Provider
- Optional, which implies that the ancillary service is not necessarily required, but could be provided
- Unknown, which implies that the requirements for the ancillary service are not known at this time

Ancillary services may be requested by a User from the Provider at the same time as transmission services are requested via the transrequest Template, by entering the special codes into ANC\_SVC\_LINK to represent the Proforma ancillary services 1 through 6 (or more) as follows:

SC:(AA[:xxx[:yyy[:nnn]]]); RV: (AA[:xxx[:yyy[:nnn]]]); RF:  
(AA[:xxx[:yyy[:nnn]]]);  
EI: (AA[:xxx[:yyy[:nnn]]]); SP: (AA[:xxx[:yyy[:nnn]]]); SU:  
(AA[:xxx[:yyy[:nnn]]]); {Registered}:(AA[:xxx[:yyy[:nnn]]])

where AA is the appropriate PRIMARY\_PROVIDER\_CODE, SELLER\_CODE, or CUSTOMER\_CODE, and represents the company providing the ancillary services. "AA" may be unspecified for "xxx" type identical to "FT", in which case the ":" character must be present and precede the "FT" type.

If multiple "AA" terms are necessary, then each "AA" grouping will be enclosed within parenthesis, with the overall group subordinate to the AS\_TYPE specified within parenthesis

and where xxx represents either:

- "FT" to indicate that the Customer will determine ancillary services at a future time, or

- "SP" to indicate that the Customer will self-provide the ancillary services, or
- "RQ" to indicate that the Customer is asking the OASIS Node to initiate the process for making an ancillary services reservation with the indicated Provider or Seller on behalf of the Customer. The Customer must then continue the reservation process with the Provider or Seller. If the transmission services request is for preconfirmed service, then the ancillary services shall also be preconfirmed, or
- "AR" to indicate an assignment reference number sequence follows.

The terms "yyy" and "nnn" are subordinate to the xxx type of "AR". yyy represents the ancillary services reservation number (ASSIGNMENT\_REF) and nnn represents the capacity of the reserved ancillary services. Square brackets are used to indicate optional elements and are not used in the actual linkage itself. Specifically, the :yyy is applicable to only the "AR" term and the :nnn may optionally be left off if the capacity of ancillary services is the same as for the transmission services, and optionally multiple ancillary reservations may be indicated by additional (xxx[:yyy[:nnn]]) enclosed within parenthesis. If no capacity amount is indicated, the required capacity is assumed to come from the ancillary reservations in the order indicated in the codes, on an "as-needed" basis.

Examples:

*Example 1:*

Assume ancillary services SC and RV are mandatory from the TP, whose code is "TPEL", and ancillary services RF, EI, SP and SU are required, but will be defined at a future time.

"SC: (TPEL:RQ); RV: (TPEL:RQ); RF:(:FT); EI:(:FT); SP:(:FT); SU:(:FT)";

*Example 2:*

Assume ancillary services SC and RV are mandatory from the TP, whose code is "TPEL", and RF, EI, SP and SU are self-supplied. The customer code is "CPSE"

"SC: (TPEL:RQ); RV: (TPEL:RQ); RF:(CPSE:SP); EI:(CPSE:SP); SP:(CPSE:SP); SU:(CPSE:SP)"

*Example 3:*

Assume ancillary services SC and RV are mandatory from the TP, whose code is "TPEL", and ancillary services RF, EI, SP and SU were purchased via a prior

OASIS reservation from seller "SANC" whose reservation number was "39843". There is sufficient capacity within the Ancillary reservation to handle this Transmission reservation.

```
"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:(SANC:AR:39843);  
EI:(SANC:AR:39843) SP:(SANC:AR:39843); SU:(SANC:AR:39843)"
```

*Example 4:*

Assume ancillary services SC and RV are mandatory from the TP, whose code is "TPEL", and ancillary services RF, EI, SP and SU were purchased via prior OASIS reservations from sellers "SANC" and "TANC", whose reservation numbers were "8763" and "9824" respectively. There is not sufficient capacity within the Ancillary reservation from seller "SANC" to handle this Transmission reservation. In this case the OASIS reservation number 8763 will be depleted for the time frame specified within the transmission reservation and the remaining required amount will come from reservation number "9824".

```
"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:((SANC:AR:8763)(TANC:AR:9824));  
EI:((SANC:AR:8763)(TANC:AR:9824));  
SP:((SANC:AR:8763)(TANC:AR:9824));  
SU:((SANC:AR:8763)(TANC:AR:9824))"
```

*Example 5:*

Assume a transmission reservation in the amount of 100 mw/hour for a period of one day is made. Ancillary services SC and RV are mandatory from the TP, whose code is "TPEL", and ancillary services RF, EI, SP and SU were purchased via prior OASIS reservations from sellers "SANC" and "TANC", whose reservation numbers were "8763" and "9824" respectively. There is sufficient capacity within the Ancillary reservation from seller "SANC" to handle this Transmission reservation, however the purchaser wishes to use only "40 mw's" from this seller. In this case the OASIS reservation number 8763 will be depleted in the amount of "40 mw's" for the time frame specified within the transmission reservation and the remaining required amount will come from reservation number "9824".

```
"SC:(TPEL:RQ); RV:(TPEL:RQ); RF:((SANC:AR:8763:40)(TANC:AR:9824));  
EI:((SANC:AR:8763:40)(TANC:AR:9824));  
SP:((SANC:AR:8763:40)(TANC:AR:9824));  
SU:((SANC:AR:8763:40)(TANC:AR:9824))"
```

#### **4.2.13 Modifications to Transactions**

Transactions processed by OASIS as outlined in Section 4.2.10 may be subject to modification by subsequent transactions or events as permitted under the Transmission Provider's Tariff. The following subsections describe the actions to

be taken on OASIS to implement specific provisions of the Open Access Pro Forma Tariff related to transmission service. Depending on the exact form of the Provider's Tariff, some of these provisions may not be applicable, and implementation of other provisions may be Provider specific.

In general, modification to any OASIS transaction initiated by the Customer shall involve the submission of a new transaction. The new transaction shall identify the specific type of modification being requested using the REQUEST\_TYPE Data Element, and reference the transaction to be modified using the RELATED\_REF Data Element. In the specific case of secondary market transactions, related transactions are identified with the use of the REASSIGNED\_REF Data Element. The following are the specific restricted values for the REQUEST\_TYPE Data Element and a brief description of their use:

- ORIGINAL – typical reservation requests submitted to the Primary Provider
- RESALE – secondary market requests submitted to a Transmission Customer as Secondary Transmission Provider
- RENEWAL – request to renew an expiring transmission reservation
- MATCHING – request to meet or exceed a competing request to retain transmission service (right of first refusal)
- DEFERRAL – request to defer or apply for extension on start of transmission service
- REDIRECT – request to redirect all or portion of a transmission reservation to an alternate POR/POD and/or make other changes to the terms of service as permitted
- {registered} – Primary Transmission Provider's may register values for REQUEST\_TYPE to implement specific provisions of their Tariffs.

The Primary Transmission Provider may also modify a Customer's transmission reservation to the extent that the original reservation's MW capacity available for scheduling may be reduced over all or a portion of the term of the original reservation subject to the terms of the Provider's Tariff. Any time a subsequent transaction initiated by the Customer modifies all or a portion of a prior transaction, or a reduction in reserved MWs is initiated by the Primary Provider, the IMPACTED counter will be incremented in the prior transaction shall be set. OASIS User's may view the list of all subsequent transactions or events impacting a given transaction using the *reduction* Template.

The following subsections describe the application of REQUEST\_TYPE to actions taken on OASIS, and how various modifications to existing reservations are to be affected.

#### **4.2.13.1 Original Transactions**

Transactions submitted to the Primary Transmission Provider using the *transrequest* Template for the typical reservation of transmission service shall be identified by the REQUEST\_TYPE of "ORIGINAL", and be processed as described in Section 4.2.10. The RELATED\_REF Data Element must be null, the Primary Provider specified as SELLER, and, if the REQUEST\_TYPE is null, the OASIS node shall default its value to "ORIGINAL". The value returned in the ASSIGNMENT\_REF Data Element shall be used to refer to this specific, original transmission reservation request in any subsequent actions taken.

#### **4.2.13.2 Partial Service**

If in the evaluation of a transmission request, the Primary Provider determines that only a portion of the Customer's requested capacity reservation (CAPACITY\_REQUESTED Data Element) can be accommodated and that the Provider is obligated or elects to offer the Customer only a portion of the requested capacity, the Primary Provider shall set the CAPACITY\_GRANTED Data Element(s) associated with that transmission reservation to the amount available, and set the STATUS to COUNTEROFFER. If the CAPACITY\_REQUESTED and/or CAPACITY\_GRANTED are not constant over time, continuation records shall be used to convey the time varying profile of MW capacity associated with the transmission request (CAPACITY\_REQUESTED, CAPACITY\_GRANTED, START\_TIME and STOP\_TIME).

The Customer shall recognize the offer of partial service by CAPACITY\_GRANTED not being equal to CAPACITY\_REQUESTED and the request STATUS of COUNTEROFFER. The Customer may elect to CONFIRM, WITHDRAW, or REBID the reservation using the *transcust* Template.

If the transmission reservation request was marked PRECONFIRMED by the Customer and an offer of partial service is extended, the reservation request must be explicitly CONFIRMED by the Customer. The OASIS node shall not automatically CONFIRM a request where CAPACITY\_REQUESTED does not equal CAPACITY\_GRANTED when/if the request STATUS is set to ACCEPTED.

#### **4.2.13.3 Secondary Sales – On OASIS**

The sale or assignment of rights from one Transmission Customer to another may be conducted on OASIS using the same transaction process as described for purchases made from the Primary Transmission Provider. The request for purchase of transmission service from another Transmission Customer (Secondary Transmission Provider) is submitted by the Customer purchasing the capacity using the *transrequest* Template. Secondary transmission sales shall be identified by the REQUEST\_TYPE of "RESALE", and be processed as described in Section 4.2.10. The RELATED\_REF Data Element must be null, the Transmission Customer owning capacity offered for resale (the Secondary Transmission Provider) specified as SELLER, and, if the REQUEST\_TYPE is null, the OASIS node shall default its value to "RESALE".

The Secondary Transmission Provider (original Customer) selling their transmission rights over OASIS shall use the *transsell* Template to approve/deny the request. If the request is to be approved (STATUS=ACCEPTED), the transmission reservation(s) currently held by the Customer selling their

capacity and the amount of capacity over time from each such reservation to be transferred to the secondary market Customer must be identified. This information is supplied via the REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME and REASSIGNED\_STOP\_TIME Data Elements. The aggregation of all REASSIGNED\_XXX Data Elements must match the capacity and time frame of the secondary transmission request as specified in the CAPACITY\_GRANTED (and/or CAPACITY\_REQUESTED), START\_TIME and STOP\_TIME Data Elements of the "RESALE" transaction.

The Customer purchasing transmission service on the secondary market over OASIS shall use the *transcust* to monitor the transaction and CONFIRM the sale if necessary. Upon confirmation of the secondary sale the IMPACTED attribute will be incremented for each reservations referenced by the REASSIGNED\_REF Data Elements.

#### **4.2.13.4 Secondary Sales – Off OASIS**

The sale or assignment of rights from one Transmission Customer to another does not have to be conducted on OASIS. However, the Transmission Customer acting as a Secondary Transmission Provider is obligated to notify the Primary Transmission Provider of all sales or assignments of transmission rights to a third party. The *transassign* Template shall be used by the Secondary Transmission Provider to convey this sale/assignment information to the Primary Provider.

The *transassign* Template allows the Secondary Transmission Provider to submit all information related to the secondary market sale. The REQUEST\_TYPE of "RESALE" is directly implied by use of the *transassign* Template. The REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME and REASSIGNED\_STOP\_TIME Data Elements identify the transmission reservation(s) currently held by the Secondary Transmission Provider, and the amount of capacity over time from each such reservation to be transferred to the secondary market Customer. The aggregation of all REASSIGNED\_XXX Data Elements must match the capacity and time frame of the secondary transmission request as specified in the CAPACITY\_GRANTED, START\_TIME and STOP\_TIME Data Elements of the "RESALE" transaction.

The IMPACTED attributed will be incremented for each reservations referenced by the REASSIGNED\_REF Data Elements.

#### **4.2.13.5 Renewal**

Requests by the Transmission Customer to renew their transmission reservation, subject to the terms of the Provider's Tariff, should be submitted using the REQUEST\_TYPE of "RENEWAL" and specify the ASSIGNMENT\_REF of the request to be renewed in the new request's RELATED\_REF Data Element. This unique REQUEST\_TYPE and association with the original request more clearly communicates, over OASIS, the intent of the Transmission Customer, and distinguishes requests for renewal of service from new requests by the same TC for additional service.

#### 4.2.13.6 Displacement – No Right of First Refusal

Confirmed transmission reservations may be subject to displacement in the event competing, higher priority requests are received by the Primary Transmission Provider. If the original Customer does not have the right of first refusal and all capacity from the original, confirmed reservation is required to accommodate the higher priority request, the Primary Transmission Provider shall set the original reservation's STATUS to DISPLACED. The STATUS of DISPLACED indicates that the original reservation has been displaced in its entirety. A reference to the competing request that forced the displacement should be entered in the SELLER\_COMMENTS field of the original reservation.

If only a portion of the original, confirmed reservation's capacity is required to accommodate the higher priority request, the Primary Transmission Provider shall document the "recall" of reserved capacity from the lower priority, confirmed reservation by incrementing the IMPACTED counter on that reservation and posting on OASIS the amount and time frames over which the original reservation's capacity was reduced. The Transmission Customer may view all impacts to existing transmission reservations (e.g., partial displacements, secondary sales, etc.) using the *reduction* Template. A reference to the competing request that forced the displacement should be entered in the SELLER\_COMMENTS field of the original reservation.

#### 4.2.13.7 Displacement – With Right of First Refusal

Confirmed transmission reservations may be subject to displacement in the event competing, higher priority requests are received by the Primary Transmission Provider. If the Primary Provider's Tariff obligates, or the Primary Provider elects to grant the original Customer the right of first refusal, the original Customer shall be notified of the competing request. The Primary Provider shall set the original request's COMPETING\_REQUEST\_FLAG to Y and update the SELLER\_COMMENTS with a reference to the competing requests ASSIGNMENT\_REF. These changes will initiate electronic notification, provided the Customer has elected to receive such notification.

If the original Customer elects to meet or exceed the terms and conditions of the competing request, that Customer shall submit a new reservation request using the *transrequest* Template specifying 1) the terms of the new request, 2) "MATCHING" for REQUEST\_TYPE, and 3) the ASSIGNMENT\_REF of their original reservation in RELATED\_REF. If the Primary Provider accepts the MATCHING request, the Primary Provider shall set the STATUS of the competing request to "REFUSED" and set the STATUS of the original, confirmed reservation to "DISPLACED". The STATUS of DISPLACED indicates that the original reservation has been displaced in its entirety.

If the original Customer does not elect to meet the terms of the competing request, the Primary Transmission Provider shall displace the original reservation, in whole or in part, in the same manner described for reservations that are not extended a right of first refusal.

Once the disposition of the original reservation and the competing request is finalized, the COMPETING\_REQUEST\_FLAG shall be reset to "N" in the original reservation.

#### 4.2.13.8 Deferral of Start of Service

The commencement of service for certain transmission reservations may be deferred by the Customer as provided by the Primary Provider's Tariff. Such deferrals of the start of service are to be treated as new requests. The Customer shall submit a new transmission reservation specifying 1) the new term of service being requested, 2) "DEFERRAL" for REQUEST\_TYPE and 3) the ASSIGNMENT\_REF of their original reservation in RELATED\_REF. On approval of the request to defer the start of service, the original reserved capacity may be subject to "recall" by the Primary Provider. If the Primary Provider recalls all or a portion of the reserved MWs associated with the original request, the Primary Provider shall increment the IMPACTED counter in the original reservation and document the reduction in service via an appropriate OASIS posting viewable to the Customer with the *reduction* Template.

#### 4.2.13.9 Alternate POR/POD

Transmission Customers may have the right to move to alternate points of receipt and/or delivery under the terms of the Primary Provider's tariff. Customers holding confirmed transmission reservations may request the use of alternate points of receipt and/or delivery by a new transmission reservation using the *transrequest* Template. The new request shall specify 1) the terms of the new service requested, 2) "REDIRECT" for the REQUEST\_TYPE and 3) the ASSIGNMENT\_REF of their original reservation in RELATED\_REF. On approval and confirmation of this new reservation, the Customer's rights to schedule transmission service under their original reservation may be reduced. If transmission rights under the original reservation are reduced, the Primary Provider shall increment the IMPACTED counter in the original reservation and document the reduction in service via an appropriate OASIS posting viewable to the Customer with the *reduction* Template.

#### 4.2.13.10 Provider Recall

There are cases in implementing provisions of the Primary Provider's Tariff that the capacity reserved by a Transmission Customer may be reduced in whole or in part. The particular reasons for these reductions are Tariff specific. The Primary Provider shall provide a mechanism to post on OASIS any such reductions or "recalls" in reserved capacity. The Customer shall be notified of any and all such reductions in reserved capacity by the incrementing of the IMPACTED counter in association with those reservations that are reduced; the IMPACTED flag is viewable with the *transstatus* Template. Specific information regarding the exact nature of each reduction in the reserved capacity under a given transmission reservation shall be posted and viewable with the *reduction* Template.

A specific example of a Primary Provider initiated recall of reserved capacity is the implementation of a partial displacement of a transmission reservation. In this instance, the Customer has not elected (or was not required to be offered) to match the terms of a higher priority, competing request. The Primary Provider "recalls" that capacity necessary to accommodate the higher priority request from the original, lower priority request. The IMPACTED counter of the original request is incremented, and a query using the *reduction* Template for that original reservation would show the Customer the amount and

time-frame that the Customer's reserved capacity was recalled by the Primary Provider. (See sections 4.2.13.6 and 4.2.13.7.)

Interruption of transmission service, where that interruption directly impacts the rights of the Customer to schedule any service under that reservation, is another example of an impact to reserved capacity that would be posted as a Primary Provider initiated recall of reserved capacity.

Secondary market sales of transmission rights are not examples of a Provider initiated recall of reserved capacity, but the impact of any such sales shall also be returned in response to execution of the *reduction* Template.

### 4.3 TEMPLATE DESCRIPTIONS

The following OASIS Templates define the Data Elements in fixed number and sequence which must be provided for all data transfers to and from the OASIS Nodes. The definitions of the Data Elements are listed in the Data Element Dictionary in Appendix A.

TSIPs must provide a more detailed supplemental definition of the list of Sellers, Paths, Point of Receipt (POR), Point of Delivery (POD), Capacity Types, Ancillary Service Types and Templates on-line, clarifying how the terms are being used (see LIST Template). If POR and POD are not used, then Path Name must include directionality.

Many of the Templates represent query-response interactions between the User and the OASIS Node. These interactions are indicated by the "Query" and "Response" section respectively of each Template. Some, as noted in their descriptions, are Input information, sent from the User to the OASIS Node. The Response is generally a mirror of the Input, although in some Templates, the TSIP must add some information.

#### 4.3.1 Template Summary

The following table provides a summary of the process areas, and Templates to be used by Users to query information that will be downloaded or to upload information to the Primary Providers. These processes define the functions that must be supported by an OASIS Node.

Process Area	Process Name	Template(s)
4.3.2 Query/Response of Posted Services Being Offered	Query/Response Transmission Capacity Offerings	transoffering
	Query/Response Ancillary Service Offerings	ancoffering
4.3.3 Query/Response of Services Information	Query/Response Transmission Services	transserv
	Query/Response Ancillary Services	ancserv

4.3.4 Query/Response of Schedule details and Curtailments, Security Events, Reductions, and System Data	Query/Response Transmission Schedules and Curtailments	scheduledetail
	Query/Response Security Events	security
	Query/Response Reductions to Reserved Capacity	reduction
	Query/Response Transmission System Data	systemdata
4.3.5 Query/Response of Lists of Information	Query/Response List of Sellers, Paths, PORs, PODs, Capacity Types, Ancillary Service Types, Templates	list
4.3.6 Purchase Transmission Services	Request Purchase of Transmission Services (Input)	transrequest
	Query/Response Status of Transmission Service Request	transstatus
	Seller Approves Purchase (Input)	transsell
	Customer Confirm/Withdraw Purchase of Transmission Service (Input)	transcust
	Seller Reassign Rights (Input)	transassign
4.3.7 Seller Posting of Transmission Service	Seller Post Transmission Service for Sale (Input)	transpost
	Seller Modify (Remove) Transmission Service for Sale (Input)	transupdate
4.3.8 Purchase of Ancillary Service	Request Purchase of Ancillary Service (Input)	ancrequest
	Query/Response Status of Ancillary Service Request	ancstatus
	Seller Approves Purchase of Ancillary Service (Input)	ancsell
	Customer Accept/Withdraw Purchase of Ancillary Service (Input)	anccust

	Seller Reassign Rights (Input)	ancassign
4.3.9 Seller Post Ancillary Service	Seller Post Ancillary Service (Input)	ancpost
	Seller Modify (Remove) Ancillary Service for Sale (Input)	ancupdate
4.3.10 Informal Messages	Post Want Ads (Input)	messagepost
	Query/Response Want Ads	message
	Delete Want Ad (Input)	messagedelete
	Personnel Transfers	personnel
	Discretion	discretion
	Standards of Conduct	stdconduct
4.3.11 Audit Log	Query/Response Audit Log	(various)

#### 4.3.2 Query/Response of Posted Services Being Offered

The following Templates define the information to be posted on services offered for sale. All discounts for service negotiated by a Customer and Primary Provider (as Seller) at a price less than the currently posted offering price shall be posted on OASIS Nodes in such a manner as to be viewed using these Templates. All secondary market and/or third-party posting and Primary Provider offerings for like services shall also be viewed using these Templates.

The Query must start with the standard header Query Variable Data Elements, listed in Section 4.2.6.2, and may include any valid combination of the remaining Query Variables, shown below in the Templates. START\_TIME and STOP\_TIME is the requested time interval for the Response to show all offerings which intersect that interval (see Section 4.2.6.6). TIME\_OF\_LAST\_UPDATE can be used to specify all services updated since a specific point in time.

Query variable listed with an asterisk (\*) can have at least 4 multiple instances defined by the user in making the query.

In the Response, OFFER\_START\_TIME and OFFER\_STOP\_TIME indicate the "request time window" within which a customer must request a service in order to get the posted OFFER\_PRICE. START\_TIME and STOP\_TIME indicate the time frame that the service is being offered for.

The SERVICE\_DESCRIPTION Data Element shall define any attributes and/or special terms and conditions applicable to the offering that are not listed under the standard SERVICE\_DESCRIPTION associated with the product definition supplied in the *transserv* or *ancserv* Templates.

SERVICE\_DESCRIPTION shall be null if there are no unique attributes or terms associated with the offering.

#### 4.3.2.1 Transmission Capacity Offerings Available for Purchase (transoffering)

Transmission Services Offerings Available for Purchase (transoffering) is used to view transmission services posted for sale by the Primary Provider or Resellers. At a minimum this Template must be used to view each increment and type of service required to be offered under applicable regulations and the Primary Provider's tariffs.

The POSTING\_REF is set by the TSIP when an offering is posted and can be used in *transrequest* to refer to a particular offering.

A User may query information about services available from all sellers for the time frame specified by the SERVICE\_INCREMENT Data Element, namely, hourly, daily, weekly, monthly, or yearly.

Template: **transoffering**

##### 1. Query

PATH\_NAME\*  
SELLER\_CODE\*  
SELLER\_DUNS\*  
POINT\_OF\_RECEIPT\*  
POINT\_OF\_DELIVERY\*  
SERVICE\_INCREMENT\*  
TS\_CLASS\*  
TS\_TYPE\*  
TS\_PERIOD\*  
TS\_WINDOW\*  
TS\_SUBCLASS\*  
START\_TIME (of transmission services)  
STOP\_TIME (of transmission services)  
POSTING\_REF  
TIME\_OF\_LAST\_UPDATE

##### 2. Response

The response is one or more records showing the requested service information. Note that the Customer will receive as a series of records spanning all the SELLER\_CODEs, PATH\_NAMEs, PORs, PODs, TS\_xxx, and the START\_TIME/STOP\_TIME specified in the query. The SALE\_REF is a value provided by the SELLER to identify the transmission service product being sold. The ANC\_SVC\_REQ indicates all ancillary services required for the specified transmission services. All Template elements are defined in the Data Element Dictionary.

TIME\_OF\_LAST\_UPDATE  
SELLER\_CODE  
SELLER\_DUNS  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
INTERFACE\_TYPE  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
START\_TIME  
STOP\_TIME  
CAPACITY (If null, then look in seller comments for information .)  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
ANC\_SVC\_REQ  
SALE\_REF  
POSTING\_REF  
CEILING\_PRICE  
OFFER\_PRICE  
PRICE\_UNITS  
SERVICE\_DESCRIPTION (if null, then look at *transserv*)  
NERC\_CURTAILMENT\_PRIORITY  
OTHER\_CURTAILMENT\_PRIORITY  
SELLER\_NAME  
SELLER\_PHONE  
SELLER\_FAX  
SELLER\_EMAIL  
SELLER\_COMMENTS

#### 4.3.2.2 Ancillary Services Available for Purchase (ancoffering)

Ancillary Services Available for Purchase (*ancoffering*) is used to provide information regarding the ancillary services that are available for sale by all sellers (both Primary Provider and Third Party Sellers).

Template: **ancoffering**

1. **Query**

SELLER\_CODE\*  
SELLER\_DUNS\*  
CONTROL\_AREA\*  
SERVICE\_INCREMENT\*  
AS\_TYPE\*  
START\_TIME  
STOP\_TIME  
POSTING\_REF  
TIME\_OF\_LAST\_UPDATE

2. **Response**

TIME\_OF\_LAST\_UPDATE  
SELLER\_CODE  
SELLER\_DUNS  
CONTROL\_AREA  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
START\_TIME  
STOP\_TIME  
CAPACITY  
SERVICE\_INCREMENT  
AS\_TYPE  
SALE\_REF  
POSTING\_REF  
CEILING\_PRICE  
OFFER\_PRICE  
PRICE\_UNITS  
SERVICE\_DESCRIPTION (if blank, then look at *ancserv*)  
SELLER\_NAME  
SELLER\_PHONE  
SELLER\_FAX  
SELLER\_EMAIL  
SELLER\_COMMENTS

### 4.3.3 Query/Response of Services Information

#### **4.3.3.1 Transmission Services (*transserv*)**

Transmission Services (*transserv*) is used to provide additional information regarding the transmission services SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_SUBCLASS,

TS\_WINDOW, NERC\_CURTAILMENT\_PRIORITY, and OTHER\_CURTAILMENT\_PRIORITY that are available for sale by a Provider in the Templates in Section 4.3.2. This Template is used to summarize Provider tariff information for the convenience of the User. The Provider also sets PRICE\_UNITS with this Template.

Template: **transserv**

1. **Query**

TIME\_OF\_LAST\_UPDATE

2. **Response**

TIME\_OF\_LAST\_UPDATE  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
CEILING\_PRICE  
PRICE\_UNITS  
SERVICE\_DESCRIPTION  
NERC\_CURTAILMENT\_PRIORITY  
OTHER\_CURTAILMENT\_PRIORITY  
TARIFF\_REFERENCE

#### 4.3.3.2 Ancillary Services (**ancserv**)

Ancillary Services (**ancserv**) is used to provide additional information regarding the ancillary services that are available for sale by a Provider in the Templates in Section 4.3.2. This Template is used to summarize Provider tariff information for the convenience of the User. The Provider also sets PRICE\_UNITS with this Template.

Template: **ancserv**

1. **Query**

TIME\_OF\_LAST\_UPDATE

2. **Response**

TIME\_OF\_LAST\_UPDATE  
SERVICE\_INCREMENT  
AS\_TYPE  
CEILING\_PRICE  
PRICE\_UNITS

SERVICE\_DESCRIPTION  
TARIFF\_REFERENCE

#### 4.3.4 Query/Response of Schedules and Curtailments, Security Events, Reductions, and System Data

##### 4.3.4.1 Transaction Schedule (*scheduledetail*)

Transaction Schedule (*scheduledetail*) provides information on the scheduled uses of the Provider's transmission system and any curtailments or interruption thereof. Posting of transmission service schedule information shall be in accordance with regulatory requirements, and reflect scheduled uses of reserved capacity to a level of detail that such schedules are subject to a Provider's application of transmission security procedures and policies regarding curtailment and interruptions. There is no restriction on the number of transaction schedule records that may refer to a given transmission reservation at a given point in time.

The Query Variables ASSIGNMENT\_REF, SELLER\_CODE, SELLER\_DUNS, CUSTOMER\_CODE, CUSTOMER\_DUNS, SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, and TS\_PERIOD act to select those transmission reservations for which all applicable transaction schedule information is to be returned. The PATH\_NAME, POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY Query Variables select all applicable interchange transaction schedule records that use the specified path, point of receipt, and/or point of delivery. The TIME\_OF\_LAST\_UPDATE, START\_TIME, and STOP\_TIME Query Variables select those particular interchange transaction schedule records updated and/or effective: 1) on or after a particular point in time (START\_TIME alone), 2) before a particular point in time (STOP\_TIME alone), or 3) between particular points in time (START\_TIME and STOP\_TIME). The TRANSACTION\_ID Query Variable selects all applicable schedule information records associated with that particular schedule. Note that the format of TRANSACTION\_ID may be Transmission Provider specific.

Each *scheduledetail* Template record returned in response to a query shall include information associated with:

1. information specifically related to the scheduled transaction,
2. information from all applicable OASIS transmission reservations used to support the scheduled interchange transaction, and
3. information related to any curtailment or interruption of service (if applicable), including a Transmission Provider's refusal to accept or begin a Customer's proposed interchange transaction for reliability or economic reasons (as allowed by the Provider's Tariff).

Information to be supplied in each *scheduledetail* Template's response records related to the scheduled interchange are, SCHEDULE\_REF, TRANSACTION\_ID, PATH\_NAME, POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY, GCA\_CODE, LCA\_CODE, SOURCE, SINK, SCHEDULE\_PRIORITY, START\_TIME, STOP\_TIME, SCHEDULE\_REQUESTED, and SCHEDULE\_GRANTED.

The posting and availability of schedule and curtailment information on OASIS shall be in accordance with FERC Policy.

SCHEDULE\_REF uniquely identifies a particular posting of schedule information. SCHEDULE\_REF would vary with each record of data returned in response to a *schedule* query. TRANSACTION\_ID, if applicable/available, contains a unique identifier associated with an interchange transaction that may span multiple SCHEDULE\_REF records. When available or applicable, the TRANSACTION\_ID Data Element should reflect any industry-recognized transaction identifier rather than a Provider specific internal identifier (e.g., the NERC electronic tagging “tag-id”). PATH\_NAME, POINT\_OF\_RECEIPT, and POINT\_OF\_DELIVERY identify the Transmission Provider’s specific transmission resources used by the scheduled transaction, and would typically be identical to the corresponding Data Elements associated with the OASIS transmission reservation used to support the schedule. When known, the GCA\_CODE and LCA\_CODE identify the NERC registered Control Area acronyms associated with the ultimate generation and load control areas respectively. When known or required to more specifically identify the ultimate points of generation and load, the SOURCE and SINK elements identify service points within the generation and load Control Areas respectively. SCHEDULE\_PRIORITY identifies the relative priority of this particular interchange transaction as compared to all other scheduled transactions with respect to the application of curtailments or interruptions. SCHEDULE\_PRIORITY would typically reflect the curtailment priority Data Elements associated with the OASIS transmission reservation used to support the schedule (i.e., NERC\_CURTAILMENT\_PRIORITY or OTHER\_CURTAILMENT\_PRIORITY). START\_TIME and STOP\_TIME designate the particular time interval represented by this record associated with the scheduled transaction. Note that multiple response records may be returned for a given scheduled transaction when information associated with the schedule vary over time (e.g., SCHEDULE\_REQUESTED, SCHEDULE\_GRANTED, SCHEDULE\_LIMIT, etc.), but that *scheduledetail* Template response records for a given scheduled transaction should never overlap in time. SCHEDULE\_REQUESTED reflects the MW value requested to be scheduled by the Customer during the hour, and SCHEDULE\_GRANTED reflects the MW value actually scheduled by the Transmission Provider at either the point of receipt or delivery, whichever is larger, over the START\_TIME/STOP\_TIME time interval. When SCHEDULE\_REQUESTED exceeds SCHEDULE\_GRANTED, a curtailment or interruption is in effect and additional information shall be returned in the record.

Information in each *scheduledetail* Template’s response record related to the OASIS transmission reservation(s) supporting the scheduled transaction includes ASSIGNMENT\_REF, SELLER\_CODE, SELLER\_DUNS, CUSTOMER\_CODE, CUSTOMER\_DUNS, AFFILIATE\_FLAG, SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_WINDOW, TS\_SUBCLASS, NERC\_CURTAILMENT\_PRIORITY, OTHER\_CURTAILMENT\_PRIORITY, and CAPACITY\_USED. Transaction schedules that are supported by the use of multiple OASIS transmission reservations return the information attributable to each individual transmission reservation using continuation records (i.e., records beginning with CONTINUATION\_FLAG = ‘Y’). Each continuation record shall also include the SCHEDULE\_REF identifier from the first (CONTINUATION\_FLAG = ‘N’) record. CAPACITY\_USED reflects the peak MW amount of the reservation used to support the scheduled transaction; the sum of CAPACITY\_USED over all continuation records (if applicable) should equal the SCHEDULE\_GRANTED.

Transaction schedules that were either “denied or interrupted” (ref. 18 CFR 37.6(a)(4)) shall include information in the *scheduledetail* Template’s response related to the reason the transaction could not be started or continued at the requested MW amount. The information returned shall include: PROVIDER\_ACTION, SCHEDULE\_LIMIT, CURTAILMENT\_OPTIONS, SECURITY\_REF, INITIATING\_PARTY, RESPONSIBLE\_PARTY, PROCEDURE\_NAME, PROCEDURE\_LEVEL, FACILITY\_LOCATION, FACILITY\_NAME, FACILITY\_CLASS, and FACILITY\_LIMIT\_TYPE. If there are no restrictions to the scheduled transaction, these Data Elements shall all be returned as null.

PROVIDER\_ACTION indicates the particular action taken by the Transmission Provider with respect to the scheduled transaction; specific values to be returned are, DENIED if the schedule was not started as requested, CURTAILED if the scheduled MW was limited for reliability reasons, or INTERRUPTED if the scheduled MW was limited for economic reasons. SCHEDULE\_LIMIT reflects the **maximum** MW value over the START\_TIME/STOP\_TIME interval that the Provider has determined can be scheduled. CURTAILMENT\_OPTIONS defines any options the Customer may exercise to reinstate all or part of the proposed schedule. SECURITY\_REF, INITIATING\_PARTY, RESPONSIBLE\_PARTY, PROCEDURE\_NAME, PROCEDURE\_LEVEL, FACILITY\_NAME, FACILITY\_CLASS, and FACILITY\_LIMIT\_TYPE provide information related to the specific transmission security event that prompted the Transmission Provider’s denial, curtailment or interruption of the proposed scheduled transaction (see *security* Template).

Template: *scheduledetail*

1. **Query**

PATH\_NAME\*  
SELLER\_CODE\*  
SELLER\_DUNS\*  
CUSTOMER\_CODE\*  
CUSTOMER\_DUNS\*  
POINT\_OF\_RECEIPT\*  
POINT\_OF\_DELIVERY\*  
SERVICE\_INCREMENT\*  
TS\_CLASS\*  
TS\_TYPE\*  
TS\_PERIOD\*  
TS\_WINDOW\*  
TS\_SUBCLASS\*  
START\_TIME  
STOP\_TIME  
TIME\_OF\_LAST\_UPDATE  
ASSIGNMENT\_REF  
TRANSACTION\_ID

2. **Response**

CONTINUATION\_FLAG

TIME\_OF\_LAST\_UPDATE  
SCHEDULE\_REF  
TRANSACTION\_ID  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
GCA\_CODE  
LCA\_CODE  
SOURCE  
SINK  
SCHEDULE\_PRIORITY

START\_TIME  
STOP\_TIME  
SCHEDULE\_REQUESTED  
SCHEDULE\_GRANTED

ASSIGNMENT\_REF  
SELLER\_CODE  
SELLER\_DUNS  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
AFFILIATE\_FLAG  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
NERC\_CURTAILMENT\_PRIORITY  
OTHER\_CURTAILMENT\_PRIORITY  
CAPACITY\_USED

(if the transaction is subject to curtailment:)

PROVIDER\_ACTION  
SCHEDULE\_LIMIT  
CURTAILMENT\_OPTIONS  
SECURITY\_REF

INITIATING\_PARTY (e.g., CA/TP code)  
RESPONSIBLE\_PARTY (e.g., SC code)  
PROCEDURE\_NAME (e.g., "NERC TLR", or registered)  
PROCEDURE\_LEVEL (e.g., "2a", "3")  
FACILITY\_LOCATION (e.g., "INTERNAL" or

"EXTERNAL")

FACILITY\_NAME  
FACILITY\_CLASS (e.g., transformer, etc.)  
FACILITY\_LIMIT\_TYPE (e.g., thermal, stability, etc.)

#### 4.3.4.2 Security Event (**security**)

Security Event (**security**) provides information on transmission security/reliability events that may impact the Provider's ability to schedule transactions. The TIME\_OF\_LAST\_UPDATE, START\_TIME, and STOP\_TIME Query Variables select those particular security event postings updated and/or effective: 1) on or after a particular point in time (START\_TIME alone), 2) before a particular point in time (STOP\_TIME alone), or 3) between particular points in time (START\_TIME and STOP\_TIME).

The SECURITY\_REF Data Element is a unique identifier assigned to each posting of security related information; SECURITY\_REF would vary with each record of data returned in response to a **security** query. The EVENT\_ID Data Element, when available, should reflect any regional or interconnection-wide recognized security event identifier for events that are of greater scope than those administered locally by the Provider (e.g., a NERC Security Coordinator assigned identifier corresponding to a particular implementation of the NERC TLR procedure). SECURITY\_TYPE identifies the type of information posted for the event; restricted values are OUTAGE for postings reflecting the state of critical transmission facilities, and LIMIT for postings reflecting the implementation of security procedures to limit or reduce scheduled transactions. The INITIATING\_PARTY identifies by Control Area, Security Coordinator or Transmission Provider code the entity calling for the "outage" or "limit", and RESPONSIBLE\_PARTY identifies the entity (Control Area, Transmission Provider, or Security Coordinator) responsible for administering any resulting security procedure that may be instituted.

PROCEDURE\_NAME and PROCEDURE\_LEVEL reflect the specific security procedure and, if applicable, the step, stage, or level within that procedure being implemented by RESPONSIBLE\_PARTY (e.g., NERC TLR is a recognized security procedure, and level "2a" is a step within that procedure). FACILITY\_NAME, FACILITY\_CLASS, and FACILITY\_LIMIT\_TYPE provide specific information related to the impacted transmission facility. FACILITY\_LOCATION identifies if the impacted facility is "INTERNAL" or "EXTERNAL" relative to the Transmission Provider's scope of authority over the named facility.

START\_TIME and STOP\_TIME reflect the period of time encompassed by the particular security event posted. In cases where a security procedure is invoked and then progresses through various levels or stages, there shall be separate postings for each of those stages declared by RESPONSIBLE\_PARTY with START\_TIME and STOP\_TIME reflecting the period of time each specific level of the procedure was in effect.

The use of the **security** Template to convey information related to major transmission facility outages (SECURITY\_TYPE = OUTAGE) is at the discretion of the Provider. Its definition in this Template is intended to formalize the posting of facility outage information in an OASIS Template structure where such information prior to implementation of this Template had been posted in a free-form manner.

Template: **security**

1. **Query**

START\_TIME  
STOP\_TIME  
TIME\_OF\_LAST\_UPDATE  
SECURITY\_REF  
EVENT\_ID  
SECURITY\_TYPE  
INITIATING\_PARTY  
RESPONSIBLE\_PARTY  
PROCEDURE\_NAME  
FACILITY\_CLASS  
FACILITY\_LIMIT\_TYPE  
FACILITY\_LOCATION

2. **Response**

TIME\_OF\_LAST\_UPDATE  
SECURITY\_REF  
EVENT\_ID  
SECURITY\_TYPE ("LIMIT" or "OUTAGE")  
INITIATING\_PARTY (e.g., CA/TP code)  
RESPONSIBLE\_PARTY (e.g., SC code)  
PROCEDURE\_NAME (e.g., "NERC TLR", or registered)  
PROCEDURE\_LEVEL (dependent on PROCEDURE\_NAME)  
FACILITY\_CLASS (e.g., "FLOWGATE", "LINE", etc.)  
FACILITY\_LIMIT\_TYPE (e.g., "THERMAL", "STABILITY", etc.)  
FACILITY\_LOCATION ("INTERNAL" or "EXTERNAL")  
FACILITY\_NAME (e.g., path or flowgate name)  
START\_TIME  
STOP\_TIME

#### 4.3.4.3 Transmission Reservation Reduction (reduction)

The Transmission Reservation Reduction (**reduction**) Template provides information related to the reduction in the Transmission Customer's rights to schedule use of all or a portion of capacity reserved for a given transmission reservation. Specific cases where such a reduction in reserved capacity would be returned in response to this query Template include: secondary market sales (as posted using the **transassign** or **transsell** Templates via the REASSIGNED\_REF, etc., Data Elements), a Transmission Provider's interruption of the reservation to accommodate higher priority reservations over the interruption interval (partial displacement), etc.

The ASSIGNMENT\_REF Query Variable is required and specifies the transmission reservation whose reductions in reserved capacity (if any) are to be returned. The START\_TIME and STOP\_TIME Query Variables allow the user to select the specific time interval over which the reductions in reserved capacity are to be returned (e.g., return all reductions in June for a year long reservation); by default all reductions over the life of the reservation are returned.

In response to a **reduction** Template query, each primary record returned (CONTINUATION\_FLAG = N) shall include the ASSIGNMENT\_REF, CAPACITY\_GRANTED and CAPACITY\_AVAILABLE in MWs over the interval from START\_TIME to STOP\_TIME. CAPACITY\_AVAILABLE is derived from the transmission reservation's CAPACITY\_GRANTED less all reductions (if any) in reserved capacity over the interval from START\_TIME to STOP\_TIME as specified in the CAPACITY\_REDUCED (as negative valued MWs) Data Element. The REDUCTION\_TYPE, and REDUCTION\_REASON Data Elements describe the circumstances and IMPACTING\_REF references the associated transmission reservation (if applicable) that caused the reduction in capacity.

If no reductions in reserved capacity have been posted against the reservation, CAPACITY\_AVAILABLE will equal CAPACITY\_GRANTED and the REDUCTION\_TYPE, REDUCTION\_REASON, IMPACTING\_REF and CAPACITY\_REDUCED Data Elements will be null. This response information is equivalent to the CAPACITY\_GRANTED, START\_TIME, and STOP\_TIME information that would be returned on execution of the **transstatus** Template.

If the CAPACITY\_AVAILABLE over the interval from START\_TIME to STOP\_TIME is the result of more than one action reducing reserved capacity (e.g., multiple secondary market sales for the same time period), each action reducing capacity will be returned in continuation records (CONTINUATION\_FLAG = Y) containing the ASSIGNMENT\_REF, REDUCTION\_TYPE, REDUCTION\_REASON, IMPACTING\_REF and CAPACITY\_REDUCED Data Elements. If the action is another reservation (e.g. secondary market sale) the REASSIGNED\_CAPACITY from that reservation will be shown as a negative value in CAPACITY\_REDUCED.

Template: **reduction**

1. **Query**  
START\_TIME  
STOP\_TIME  
ASSIGNMENT\_REF\* (must be specified)
  
2. **Response**  
  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
CAPACITY\_GRANTED  
CAPACITY\_AVAILABLE  
START\_TIME

STOP_TIME	
REDUCTION_TYPE	(e.g., REDIRECT, INTERRUPTION, RESALE, DISPLACEMENT, etc.)
REDUCTION_REASON	
IMPACTING_REF	(if applicable)
CAPACITY_REDUCED	

#### 4.3.4.4 System Data (systemdata)

The System Data (**systemdata**) Template is used to query specific, time varying data that is posted on a PATH, POINT\_OF\_RECEIPT, and/or POINT\_OF\_DELIVERY basis. The SYSTEM\_ATTRIBUTE Data Element defines the type of information returned in the Template response. The restricted values for SYSTEM\_ATTRIBUTE are,

- CBM – Capacity Benefit Margin
- TRM – Transmission Reliability Margin
- TTC – Total Transmission Capability
- NATC – Non-recallable (Firm) Available Transmission Capability
- RATC – Recallable (Non-firm) Available Transmission Capability
- {registered} – Provider specific registered name for the data posted

Transmission Providers obligated to post values for one or more of the defined SYSTEM\_ATTRIBUTES on specific transmission paths over time (e.g., hourly, then daily, etc.) as called forth in FERC regulations shall return these posted values via the **systemdata** Template. If SYSTEM\_ATTRIBUTE is omitted in the query, then all attributes defined by the transmission provider are returned, subject to the other query attributes constraints.. A given SYSTEM\_ATTRIBUTE may take on only one value at any given point in time. Note that TTC and ATC information may also be viewed using the **transoffering** Template at the Transmission Provider's discretion. Offers of service posted by Primary Providers as viewed with the **transoffering** Template should reflect the applicable ATC(s) posted via **systemdata** in the CAPACITY Data Element.

Template: **systemdata**

#### 1. Query

PATH\_NAME\*  
POINT\_OF\_RECEIPT\*  
POINT\_OF\_DELIVERY\*  
SYSTEM\_ATTRIBUTE\*  
START\_TIME  
STOP\_TIME  
TIME\_OF\_LAST\_UPDATE

#### 2. Response (acknowledgment)

POSTING\_REF  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
SYSTEM\_ATTRIBUTE  
START\_TIME  
STOP\_TIME  
ATTRIBUTE\_VALUE  
ATTRIBUTE\_UNITS  
TIME\_OF\_LAST\_UPDATE

### 4.3.5 Query/Response of Lists of Information

#### 4.3.5.1 List (list)

List (*list*) is used to provide lists of valid names. The minimum set of lists is LIST, SELLER\_CODE, PATH\_NAME, POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY, SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_SUBCLASS, TS\_WINDOW, NERC\_CURTAILMENT\_PRIORITY, REQUEST\_TYPE, ANC\_SERVICE\_POINT, FACILITY\_CLASS, FACILITY\_LIMIT\_TYPE, PROCEDURE\_NAME, SYSTEM\_ATTRIBUTE, SECURITY\_TYPE, FACILITY\_LOCATION, OTHER\_CURTAILMENT\_PRIORITY, AS\_TYPE, CATEGORY, and TEMPLATE. The information returned by the *list* Template may be used as values for the associated OASIS Data Elements to query information, post or request services.

Template: **list**

1. **Query**

LIST\_NAME  
TIME\_OF\_LAST\_UPDATE

2. **Response**

TIME\_OF\_LAST\_UPDATE  
LIST\_NAME  
LIST\_ITEM  
LIST\_ITEM\_DESCRIPTION

### 4.3.6 Purchase Transmission Services

The following Templates shall be used by Customers and Sellers to transact purchases of services.

#### 4.3.6.1 Customer Capacity Purchase Request (transrequest)

The **Customer Capacity Purchase Request** (Input) (*transrequest*) is used by the Customer to request the purchase of transmission services or request changes to previously submitted reservations for transmission services. The response simply acknowledges that the Customer's request was received by the OASIS Node. It does not imply that the Seller has received the request. Inputting values into the reference Data Elements is optional.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

Supporting "profiles" of service, which request different capacities (and optionally price) for different time periods within a single request, is at the discretion of the Primary Provider. Continuation records may be used to indicate

requests for these service profiles; use of continuation records is only supported when using the CSV Format upload of Template data. Each segment of a profile is represented by the Data Elements CAPACITY\_REQUESTED, START\_TIME, and STOP\_TIME, which define the intervals in time over which a non-zero MW demand is being requested. The initial segment of a profile is defined by the CAPACITY\_REQUESTED, START\_TIME and STOP\_TIME Data Elements specified in the first/only record submitted; subsequent segments are specified in continuation records each containing the appropriate CAPACITY\_REQUESTED, START\_TIME and STOP\_TIME values defining the segment. Provider's may optionally support price negotiation on segments of a profiled reservation request. In this case, the BID\_PRICE Data Element is also included in each continuation record. If the BID\_PRICE Data Element is not specified in the continuation records, the BID\_PRICE specified in the first/only record submitted will be applied to the entire reservation request.

For requesting transmission services which include multiple paths, the following fields may be specified using continuation records: PATH\_NAME, POINT\_OF\_RECEIPT, and POINT\_OF\_DELIVERY. Supporting multiple paths or multiple POINT\_OF\_RECEIPT and POINT\_OF\_DELIVERY is at the discretion of the Provider.

The START\_TIME and STOP\_TIME indicate the requested period of service.

When the request is received at the OASIS Node, the TSIP assigns a unique ASSIGNMENT\_REF value and queues the request with a time stamp. The STATUS for the request is QUEUED. The IMPACTED counter is initially set to 0. If the new request is not modifying an existing reservation (as indicated by a null value for the RELATED\_REF Data Element) and the SELLER is the Primary Provider, REQUEST\_TYPE must either be specified as "ORIGINAL" or be left null and OASIS will substitute the default value of "ORIGINAL". If the new request is not modifying an existing reservation and the SELLER is not the Primary Provider, REQUEST\_TYPE must either be specified as "RESALE" or be left null and OASIS will substitute the default value of "RESALE".

If the new request is modifying an existing transmission reservation, the Data Elements REQUEST\_TYPE and RELATED\_REF must be entered. RELATED\_REF contains the ASSIGNMENT\_REF for the transmission reservation being modified, and REQUEST\_TYPE must be one of MATCHING, REDIRECT, DEFERRAL, RENEWAL, or a Primary Provider registered value. Specification of a value YES in the PRECONFIRMED field authorizes the TSIP to automatically change the STATUS field in the *transstatus* Template to CONFIRMED when that request is ACCEPTED by the Seller.

Template: **transrequest**

## 1. **Input**

CONTINUATION\_FLAG  
SELLER\_CODE (Primary or Reseller)

SELLER\_DUNS  
 PATH\_NAME  
 POINT\_OF\_RECEIPT  
 POINT\_OF\_DELIVERY  
 SOURCE  
 SINK  
 CAPACITY\_REQUESTED  
 SERVICE\_INCREMENT  
 TS\_CLASS  
 TS\_TYPE  
 TS\_PERIOD  
 TS\_WINDOW  
 TS\_SUBCLASS  
 STATUS\_NOTIFICATION  
 START\_TIME  
 STOP\_TIME  
 BID\_PRICE  
 PRECONFIRMED  
 ANC\_SVC\_LINK  
 POSTING\_REF (Optionally set by Customer)  
 SALE\_REF (Optionally set by Customer)  
 REQUEST\_REF (Optionally set by Customer)  
 DEAL\_REF (Optionally set by Customer)  
 CUSTOMER\_COMMENTS  
 REQUEST\_TYPE (Required for request changes)  
 RELATED\_REF (Required for request changes)

2. **Response** (acknowledgment)

RECORD\_STATUS  
 CONTINUATION\_FLAG  
 ASSIGNMENT\_REF (assigned by TSIP)  
 SELLER\_CODE  
 SELLER\_DUNS  
 PATH\_NAME  
 POINT\_OF\_RECEIPT  
 POINT\_OF\_DELIVERY  
 SOURCE  
 SINK  
 CAPACITY\_REQUESTED  
 SERVICE\_INCREMENT  
 TS\_CLASS  
 TS\_TYPE  
 TS\_PERIOD  
 TS\_WINDOW

TS\_SUBCLASS  
STATUS\_NOTIFICATION  
START\_TIME  
STOP\_TIME  
BID\_PRICE  
PRECONFIRMED  
ANC\_SVC\_LINK  
POSTING\_REF  
SALE\_REF  
REQUEST\_REF  
DEAL\_REF  
CUSTOMER\_COMMENTS  
REQUEST\_TYPE  
RELATED\_REF  
ERROR\_MESSAGE

#### 4.3.6.2 Status of Customer Purchase Request (*transstatus*)

The **Status of Customer Purchase Request** (*transstatus*) is provided upon the request of any Customer or Provider to indicate the current status of one or more reservation records. Users may also view any transaction's status. However, the SOURCE and SINK may be masked for User requests until Transmission Providers must make source and sink information available at the time the request status posting is updated to show that a transmission request is confirmed.

Continuation records may be returned in association with a transmission reservation to convey information regarding: 1) sale or assignment of transmission rights on the secondary market (reassignments), 2) profiled requests, or 3) service over multiple paths Each continuation record associated with a transmission reservation shall be identified by the CONTINUATION\_FLAG Data Element set to 'Y' and include the ASSIGNMENT\_REF Data Element.

When a transmission reservation request acquires its rights to transmission service as the result of a sale or assignment of transmission rights on the secondary market, the identity of the original reservation, capacity, and time interval over which rights are assigned to the new reservation are defined by the Data Elements REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME. These Data Elements will be returned in continuation records when more than one set of reassignment information is associated with a reservation.

If the transmission reservation has an associated profile, either as a result of the submission of CAPACITY\_REQUESTED varying over time (support for Customer reservation profiles is at the discretion of the Provider) or due to the Provider offering partial service specifying a CAPACITY\_GRANTED varying over time, then CAPACITY\_GRANTED, CAPACITY\_REQUESTED, START\_TIME and STOP\_TIME for the segments of the profile will be returned in continuation records. If the Provider supports negotiation of price on each segment of a Customer profiled request, BID\_PRICE and OFFER\_PRICE will also be returned with CAPACITY\_REQUESTED, CAPACITY\_GRANTED, START\_TIME and STOP\_TIME.

If the Provider supports reservations submitted on multiple paths, continuation records specifying PATH\_NAME, POINT\_OF\_RECEIPT, and POINT\_OF\_DELIVERY associated with the reservation would be returned in continuation records.

The AFFILIATE\_FLAG will be set by the TSIP to indicate whether or not the Customer is an affiliate of the Primary Provider. The NEGOTIATED\_PRICE\_FLAG will be set by the TSIP to indicate whether the OFFER\_PRICE is higher, lower, or the same as the BID\_PRICE.

Any time that a confirmed transmission reservation's rights to schedule up to the amount of CAPACITY\_GRANTED is reduced, either due to secondary market sales, partial displacements, Provider initiated "recalls" of capacity, etc., the IMPACTED Data Element shall be incremented. Specific information regarding the MW level and reason for reduction in reserved capacity is viewable using the *reduction* Template.

Template: **transstatus**

1. **Query**

SELLER\_CODE\*  
SELLER\_DUNS\*  
CUSTOMER\_CODE\*  
CUSTOMER\_DUNS\*  
PATH\_NAME\*  
POINT\_OF\_RECEIPT\*  
POINT\_OF\_DELIVERY\*  
SERVICE\_INCREMENT\*  
TS\_CLASS\*  
TS\_TYPE\*  
TS\_PERIOD\*  
TS\_WINDOW\*  
TS\_SUBCLASS\*  
STATUS\*  
START\_TIME (Beginning time of service)  
STOP\_TIME  
START\_TIME\_QUEUED (Beginning time queue)  
STOP\_TIME\_QUEUED  
NEGOTIATED\_PRICE\_FLAG  
ASSIGNMENT\_REF  
REASSIGNED\_REF  
RELATED\_REF  
SALE\_REF  
REQUEST\_REF  
DEAL\_REF  
COMPETING\_REQUEST\_FLAG  
TIME\_OF\_LAST\_UPDATE

2. **Response**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
SELLER\_CODE  
SELLER\_DUNS  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
AFFILIATE\_FLAG (Set by TSIP)  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
SOURCE  
SINK  
CAPACITY\_REQUESTED  
CAPACITY\_GRANTED  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
NERC\_CURTAILMENT\_PRIORITY  
OTHER\_CURTAILMENT\_PRIORITY  
START\_TIME  
STOP\_TIME  
CEILING\_PRICE  
OFFER\_PRICE  
BID\_PRICE  
PRICE\_UNITS  
PRECONFIRMED  
ANC\_SVC\_LINK  
ANC\_SVC\_REQ  
POSTING\_REF  
SALE\_REF  
REQUEST\_REF  
DEAL\_REF  
IMPACTED (Greater than 0, if another reservation impacts this reservation)  
COMPETING\_REQUEST\_FLAG  
REQUEST\_TYPE **ORIGINAL, RESALE, REDIRECT,  
MATCHING,DEFERRAL, RENEWAL, {registered}**  
RELATED\_REF  
NEGOTIATED\_PRICE\_FLAG ("L" if Seller accepted Price is lower than  
OFFER\_PRICE in *transoffering* Template; "H" if  
higher; otherwise blank)  
STATUS = **RECEIVED, QUEUED, INVALID, STUDY, REBID,**

**COUNTEROFFER, ACCEPTED, DECLINED,  
SUPERSEDED, REFUSED, CONFIRMED, WITHDRAWN,  
DISPLACED, ANNULLED, RETRACTED**

STATUS\_NOTIFICATION  
STATUS\_COMMENTS  
TIME\_QUEUED  
RESPONSE\_TIME\_LIMIT  
TIME\_OF\_LAST\_UPDATE  
PRIMARY\_PROVIDER\_COMMENTS  
SELLER\_REF  
SELLER\_COMMENTS  
CUSTOMER\_COMMENTS  
SELLER\_NAME  
SELLER\_PHONE  
SELLER\_FAX  
SELLER\_EMAIL  
CUSTOMER\_NAME  
CUSTOMER\_PHONE  
CUSTOMER\_FAX  
CUSTOMER\_EMAIL  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Capacity from each previous transaction)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME

#### **4.3.6.3 Seller Approval of Purchase (transsell)**

Seller Approval of Purchase (Input) (*transsell*) is input by a Seller to modify the status and queue of a request by a Customer.

The following fields may be submitted in continuation records for the transsell Template to convey transmission rights from multiple original transmission reservations to this new reservation: REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME. Use of continuation records is only supported when using the CSV format upload of Template data.

If the Provider/Seller cannot accommodate the Customer's CAPACITY\_REQUESTED and is obligated or elects to offer the Customer partial service that varies over the total period of the reservation, CAPACITY\_GRANTED, START\_TIME and STOP\_TIME Data Elements may be repeated in continuation records.

If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), OFFER\_PRICE,

START\_TIME and STOP\_TIME Data Elements may be submitted in continuation records to modify the Seller's offer price associated with the profile segment(s) corresponding to START\_TIME and STOP\_TIME. OFFER\_PRICE associated with each segment of a profiled request must match the corresponding BID\_PRICE for the reservation request's STATUS to be set to ACCEPTED.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request. The SELLER\_REF Data Element may be set by the SELLER to a seller specific internal tracking number.

If the reservation is subject to the right of first refusal pending a status change to Displaced , the COMPETING\_REQUEST\_FLAG shall be set to Y, and SELLER\_COMMENTS shall be updated with a reference to the competing requests ASSIGNMENT\_REF. If the reservation is subject to the right of first refusal pending a status change to Superseded, the COMPETING\_REQUEST\_FLAG shall be set to Y, the OFFER\_PRICE shall be updated, the SELLER\_COMMENTS shall be updated with a reference to the competing requests ASSIGNMENT\_REF, and the STATUS shall be set to COUNTEROFFER. Once the disposition of the request is finalized, the COMPETING\_REQUEST\_FLAG shall be reset to N and any appropriate status change shall be made.

The Seller may accept a reservation only when the BID\_PRICE and the OFFER\_PRICE are the same.

Template: **transsell**

1. **Input**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF (Required)  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
CAPACITY\_GRANTED  
STATUS = **RECEIVED, INVALID, STUDY, COUNTEROFFER,  
ACCEPTED, REFUSED, SUPERSEDED, DECLINED,  
ANNULLED, RETRACTED, DISPLACED**  
STATUS\_COMMENTS  
ANC\_SVC\_LINK  
ANC\_SVC\_REQ  
COMPETING\_REQUEST\_FLAG  
NEGOTIATED\_PRICE\_FLAG  
SELLER\_REF  
SELLER\_COMMENTS  
RESPONSE\_TIME\_LIMIT  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Previous capacity to be reassigned)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME

## 2. **Response**

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
CAPACITY\_GRANTED  
STATUS = **RECEIVED, INVALID, STUDY, COUNTEROFFER,  
ACCEPTED, REFUSED, SUPERSEDED, DECLINED,  
ANNULLED, RETRACTED, DISPLACED**

STATUS\_COMMENTS  
ANC\_SVC\_LINK  
ANC\_SVC\_REQ  
COMPETING\_REQUEST\_FLAG  
NEGOTIATED\_PRICE\_FLAG  
SELLER\_REF  
SELLER\_COMMENTS  
RESPONSE\_TIME\_LIMIT  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Previous capacity to be reassigned)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME  
ERROR\_MESSAGE

### 4.3.6.4 **Customer Confirmation of Purchase (Input) (transcust)**

Customer Confirmation of Purchase (Input) (*transcust*) is input by the Customer to state his agreement or withdrawal of a purchase after the Seller has indicated that the purchase request is approved. Only the BID\_PRICE, STATUS, STATUS\_COMMENTS, ANC\_SVC\_LINK, and CUSTOMER\_COMMENTS Data Elements can be modified in this Template.

The PRECONFIRMED Data Element may only be set to a value of 'Y' using this Template. Once the Customer has set PRECONFIRMED to 'Y', either on the original submission of the *transrequest* Template or via this Template, its value cannot be reset to 'N'.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

The Customer must change the BID\_PRICE to be equal to the OFFER\_PRICE before the reservation request's STATUS can be set to CONFIRMED.

If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), BID\_PRICE,

START\_TIME and STOP\_TIME Data Elements may be submitted in continuation records to modify the Customer's bid price associated with the profile segment(s) corresponding to START\_TIME and STOP\_TIME. BID\_PRICE associated with each segment of a profiled request must match the corresponding OFFER\_PRICE for the reservation request's STATUS to be set to CONFIRMED.

Template: **transcust**

1. **Input**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF (Required)  
START\_TIME  
STOP\_TIME  
REQUEST\_REF  
DEAL\_REF  
BID\_PRICE  
PRECONFIRMED  
STATUS= **REBID, CONFIRMED, WITHDRAWN**  
STATUS\_COMMENTS  
ANC\_SVC\_LINK  
STATUS\_NOTIFICATION If left blank, then original URL from the *transrequest* will be used  
CUSTOMER\_COMMENTS

2. **Response**

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
START\_TIME  
STOP\_TIME  
REQUEST\_REF  
DEAL\_REF  
BID\_PRICE  
PRECONFIRMED  
STATUS= **REBID, CONFIRMED, WITHDRAWN**  
STATUS\_COMMENTS  
ANC\_SVC\_LINK  
STATUS\_NOTIFICATION  
CUSTOMER\_COMMENTS  
ERROR\_MESSAGE

**4.3.6.5 Seller to Reassign Service Rights to Another Customer (transassign)**

Seller to Reassign Service Rights to Another Customer (Input) (*transassign*) is used by the seller to ask the Transmission Services Information Provider to reassign some or all of the seller's rights to Services to another Customer, for seller confirmed transactions that have occurred off the OASIS Node. The TSIP shall assign a unique ASSIGNMENT\_REF in the response (acknowledgment) and enter the status CONFIRMED as viewed in the *transstatus* Template.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Only the following fields may be redefined in a continuation record for the *transassign* input Template: CAPACITY\_REQUESTED, CAPACITY\_GRANTED, START\_TIME, STOP\_TIME, REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME.

The REQUEST\_TYPE of "RESALE" is implied through execution of this Template.

Template: **transassign**

1. **Input**

CONTINUATION\_FLAG  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
SOURCE  
SINK  
CAPACITY\_REQUESTED  
CAPACITY\_GRANTED  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
ANC\_SVC\_LINK (optional: filled in if assignment is different than original transmission reservation)  
POSTING\_NAME  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Capacity being sold from each previous assignment)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME

SELLER\_COMMENTS  
SELLER\_REF

2. **Response (acknowledgment)**

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF (assigned by TSIP)  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
SOURCE  
SINK  
CAPACITY\_REQUESTED  
CAPACITY\_GRANTED (Total capacity being reassigned)  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
ANC\_SVC\_LINK  
POSTING\_NAME  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Capacity being sold from each previous assignment)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME  
SELLER\_COMMENTS  
SELLER\_REF  
ERROR\_MESSAGE

#### 4.3.7 Seller Posting of Transmission Services

Sellers shall use the following Templates for providing sell information. They may aggregate portions of several previous purchases to create a new service, if this capability is provided by the Transmission Services Information Provider:

##### 4.3.7.1 Seller Capacity Posting (transpost)

Seller Capacity Posting (Input) (*transpost*) shall be used by the Seller to post the transmission capacity for resale on to the OASIS Node.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **transpost**

1. **Input**

PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
INTERFACE\_TYPE  
CAPACITY  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS  
ANC\_SVC\_REQ  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
SALE\_REF  
OFFER\_PRICE  
SERVICE\_DESCRIPTION  
SELLER\_COMMENTS

2. **Response (Acknowledgment)**

RECORD\_STATUS  
POSTING\_REF (Assigned by TSIP)  
PATH\_NAME  
POINT\_OF\_RECEIPT  
POINT\_OF\_DELIVERY  
INTERFACE\_TYPE  
CAPACITY  
SERVICE\_INCREMENT  
TS\_CLASS  
TS\_TYPE  
TS\_PERIOD  
TS\_WINDOW  
TS\_SUBCLASS

ANC\_SVC\_REQ  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
SALE\_REF  
OFFER\_PRICE  
SERVICE\_DESCRIPTION  
SELLER\_COMMENTS  
ERROR\_MESSAGE

#### 4.3.7.2 Seller Capacity Modify (transupdate)

Seller Capacity Modify (Input) (*transupdate*) shall be used by a Seller to modify a posting of transmission capacity.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **transupdate**

##### 1. **Input**

POSTING_REF	(Must be provided)
CAPACITY	(only if modified)
START_TIME	(only if modified)
STOP_TIME	(only if modified)
OFFER_START_TIME	(only if modified)
OFFER_STOP_TIME	(only if modified)
ANC_SVC_REQ	(only if modified)
SALE_REF	(only if modified)
OFFER_PRICE	(only if modified)
SERVICE_DESCRIPTION	(only if modified)
SELLER_COMMENTS	(only if modified)

##### 2. **Response (acknowledgment)**

RECORD\_STATUS  
POSTING\_REF  
CAPACITY  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
ANC\_SVC\_REQ

SALE\_REF  
OFFER\_PRICE  
SERVICE\_DESCRIPTION  
SELLER\_COMMENTS  
ERROR\_MESSAGE

#### 4.3.8 Purchase of Ancillary Services

##### 4.3.8.1 Customer Requests to Purchase Ancillary Services (*ancrequest*)

Customer Requests to Purchase Ancillary Services (*ancrequest*) (Input, Template Upload) is used by the customer to request ancillary services that have been posted by a seller of those services. The response simply acknowledges that the Customer's request was received by the OASIS Node. It does not imply that the Seller has received the request. The same requirements exist for the use of STATUS\_NOTIFICATION as for *transrequest*. Submitting values into the reference Data Elements is optional.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

Supporting "profiles" of ancillary service, which request different capacities (and optionally price) for different time periods within a single request, is at the discretion of the Primary Provider. Continuation records may be used to indicate requests for these service profiles. Each segment of a profile is represented by the Data Elements CAPACITY, START\_TIME, and STOP\_TIME, which define the intervals in time over which a non-zero MW demand is being requested. The initial segment of a profile is defined by the CAPACITY, START\_TIME and STOP\_TIME Data Elements specified in the first/only record submitted; subsequent segments are specified in continuation records each containing the appropriate CAPACITY, START\_TIME and STOP\_TIME values defining the segment. Provider's may optionally support price negotiation on segments of a profiled reservation request. In this case, the BID\_PRICE Data Element is also included in each continuation record. If the BID\_PRICE Data Element is not specified in the continuation records, the BID\_PRICE specified in the first/only record submitted will be applied to the entire reservation request.

The START\_TIME and STOP\_TIME indicate the requested period of service.

When the request is received at the OASIS Node, the TSIP assigns a unique ASSIGNMENT\_REF value and queues the request with a time stamp. The STATUS for the request is QUEUED.

Specification of a value YES in the PRECONFIRMED field authorizes the TSIP to automatically change the STATUS field in the *ancstatus* Template to CONFIRMED when that request is ACCEPTED by the Seller.

Template: **ancrequest**

##### 1. **Input**

CONTINUATION\_FLAG  
 SELLER\_CODE  
 SELLER\_DUNS  
 CONTROL\_AREA  
 ANC\_SERVICE\_POINT  
 CAPACITY  
 SERVICE\_INCREMENT  
 AS\_TYPE  
 STATUS\_NOTIFICATION  
 START\_TIME  
 STOP\_TIME  
 BID\_PRICE  
 PRECONFIRMED  
 POSTING\_REF (Optionally set by Customer)  
 SALE\_REF (Optionally set by Customer)  
 REQUEST\_REF (Optionally set by Customer)  
 DEAL\_REF (Optionally set by Customer)  
 CUSTOMER\_COMMENTS

2. **Response** (acknowledgment)

RECORD\_STATUS  
 CONTINUATION\_FLAG  
 ASSIGNMENT\_REF (assigned by TSIP)  
 SELLER\_CODE  
 SELLER\_DUNS  
 CONTROL\_AREA  
 ANC\_SERVICE\_POINT  
 CAPACITY  
 SERVICE\_INCREMENT  
 AS\_TYPE  
 STATUS\_NOTIFICATION  
 START\_TIME  
 STOP\_TIME  
 BID\_PRICE  
 PRECONFIRMED  
 POSTING\_REF  
 SALE\_REF  
 REQUEST\_REF  
 DEAL\_REF  
 CUSTOMER\_COMMENTS  
 ERROR\_MESSAGE

**4.3.8.2 Ancillary Services Status (ancstatus)**

Ancillary Services Status (*ancstatus*) is used to provide the status of purchase requests regarding the ancillary services that are available for sale by all Service Providers.

Continuation records may be returned in association with a ancillary services reservation to convey information regarding: 1) sale or assignment of ancillary rights on the secondary market (reassignments), or 2) profiled requests. When an ancillary reservation request is the result of a sale or assignment of transmission or ancillary rights on the secondary market, the identity of the original reservation, capacity, and time interval over which rights are assigned to the new reservation are defined by the Data Elements REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME. These Data Elements will be returned in continuation records when more than one set of reassignment information is associated with a reservation. If the reservation has an associated profile (support for reservation profiles is at the discretion of the Provider), CAPACITY, START\_TIME and STOP\_TIME for the segments of the profile will be returned in continuation records. If the Provider supports negotiation of price on each segment of a profiled request, BID\_PRICE and OFFER\_PRICE will also be returned with CAPACITY, START\_TIME and STOP\_TIME.

The AFFILIATE\_FLAG will be set by the TSIP to indicate whether or not the Customer is an affiliate of the Seller.

The values of STATUS and processes for setting STATUS are the same as for *transstatus*.

Template: **ancstatus**

1. **Query**

SELLER\_CODE\*  
SELLER\_DUNS\*  
CUSTOMER\_CODE\*  
CUSTOMER\_DUNS\*  
CONTROL\_AREA  
ANC\_SERVICE\_POINT  
SERVICE\_INCREMENT  
AS\_TYPE  
STATUS  
START\_TIME  
STOP\_TIME  
START\_TIME\_QUEUED  
STOP\_TIME\_QUEUED  
NEGOTIATED\_PRICE\_FLAG  
ASSIGNMENT\_REF  
REASSIGNED\_REF  
SALE\_REF

REQUEST\_REF  
DEAL\_REF  
TIME\_OF\_LAST\_UPDATE (only if TIME\_OF\_LAST\_UPDATE is posted by record)

2. **Response**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
SELLER\_CODE  
SELLER\_DUNS  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
AFFILIATE\_FLAG (Set by TSIP)  
CONTROL\_AREA  
ANC\_SERVICE\_POINT  
CAPACITY  
SERVICE\_INCREMENT  
AS\_TYPE  
START\_TIME  
STOP\_TIME  
CEILING\_PRICE  
OFFER\_PRICE  
BID\_PRICE  
PRICE\_UNITS  
PRECONFIRMED  
POSTING\_REF  
SALE\_REF  
REQUEST\_REF  
DEAL\_REF  
NEGOTIATED\_PRICE\_FLAG ("L" if Seller accepted Price is lower than  
OFFER\_PRICE in *ancoffering* Template; "H" if  
higher; otherwise blank)  
STATUS= **QUEUED, INVALID, RECEIVED, STUDY, REBID,  
COUNTEROFFER, ACCEPTED, REFUSED, CONFIRMED,  
WITHDRAWN, SUPERSEDED, DECLINED, ANNULLED,  
RETRACTED, DISPLACED**  
STATUS\_NOTIFICATION  
STATUS\_COMMENTS  
TIME\_QUEUED  
RESPONSE\_TIME\_LIMIT  
TIME\_OF\_LAST\_UPDATE  
PRIMARY\_PROVIDER\_COMMENTS  
SELLER\_COMMENTS  
CUSTOMER\_COMMENTS  
SELLER\_NAME  
SELLER\_PHONE

SELLER\_FAX  
SELLER\_EMAIL  
CUSTOMER\_NAME  
CUSTOMER\_PHONE  
CUSTOMER\_FAX  
CUSTOMER\_EMAIL  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME

#### 4.3.8.3 Seller Approves Ancillary Service (ancsell)

Seller Approves Ancillary Service (*ancsell*) is used by the Seller to confirm acceptance after the Seller has approved the purchase of ancillary service.

The following fields may be submitted in continuation records for the ancshell Template to convey ancillary rights from multiple original ancillary service reservations to this new reservation: REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME. If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), OFFER\_PRICE, START\_TIME and STOP\_TIME Data Elements may be submitted in continuation records to modify the Seller's offer price associated with the profile segment(s) corresponding to START\_TIME and STOP\_TIME. OFFER\_PRICE associated with each segment of a profiled request must match the corresponding BID\_PRICE for the reservation request's STATUS to be set to ACCEPTED.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **ancshell**

##### 1. **Input**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF (Required)  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
STATUS = **INVALID, RECEIVED, STUDY, COUNTEROFFER,  
SUPERSEDED, ACCEPTED, REFUSED,  
DECLINED, ANNULLED, RETRACTED,  
DISPLACED**  
STATUS\_COMMENTS  
NEGOTIATED\_PRICE\_FLAG  
RESPONSE\_TIME\_LIMIT

SELLER\_COMMENTS  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME

2. **Response** (acknowledgment)

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
STATUS

= **INVALID, RECEIVED, STUDY, COUNTEROFFER,  
SUPERSEDED, ACCEPTED, REFUSED,  
DECLINED, ANNULLED, RETRACTED,  
DISPLACED**

STATUS\_COMMENTS  
NEGOTIATED\_PRICE\_FLAG  
RESPONSE\_TIME\_LIMIT  
SELLER\_COMMENTS  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME  
ERROR\_MESSAGE

#### 4.3.8.4 Customer accepts Ancillary Service (*anccust*)

Customer accepts Ancillary Service (*anccust*) is used by the customer to confirm acceptance after the seller has approved the purchase of ancillary service.

The Customer must change the BID\_PRICE to be equal to the OFFER\_PRICE before the reservation request's STATUS can be set to CONFIRMED. If the Provider/Seller supports the negotiation of price on individual segments of a profiled reservation request (support for reservation profiles is at the discretion of the Provider), BID\_PRICE, START\_TIME and STOP\_TIME Data Elements may be submitted in continuation records to modify the Customer's bid price associated with the profile segment(s) corresponding to START\_TIME and STOP\_TIME. BID\_PRICE associated with each segment of a profiled request must match the corresponding OFFER\_PRICE for the reservation request's STATUS to be set to CONFIRMED.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

Template: **anccust**

1. **Input**

CONTINUATION\_FLAG  
ASSIGNMENT\_REF (Required)  
START\_TIME  
STOP\_TIME  
REQUEST\_REF  
DEAL\_REF  
BID\_PRICE  
PRECONFIRMED  
STATUS= **REBID, CONFIRMED, WITHDRAWN**  
STATUS\_COMMENTS  
STATUS\_NOTIFICATION (If left blank, then the original URL from the  
ancrequest will be used  
CUSTOMER\_COMMENTS

2. **Response (Acknowledgment)**

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF  
START\_TIME  
STOP\_TIME  
REQUEST\_REF  
DEAL\_REF  
BID\_PRICE  
PRECONFIRMED  
STATUS = **REBID, CONFIRMED, WITHDRAWN**  
STATUS\_COMMENTS  
STATUS\_NOTIFICATION  
CUSTOMER\_COMMENTS  
ERROR\_MESSAGE

#### 4.3.8.5 Seller to Reassign Service Rights to Another Customer (anccassign)

Seller to Reassign Service Rights to Another Customer (Input) (*anccassign*) is used by the seller to ask the Transmission Services Information Provider to reassign some or all of the seller's rights to Services to another Customer, for seller confirmed transactions that have occurred off the OASIS Node. Implementation of this Template is optional until such time that a business case requiring the use of such a facility to selectively reassign ancillary services is clearly demonstrated.

The TSIP shall assign a unique ASSIGNMENT\_REF in the response (acknowledgment) and enter the status CONFIRMED as viewed in the *ancstatus* Template.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Only the following fields may be redefined in a continuation record for the *ancassign* input Template: CAPACITY, START\_TIME, STOP\_TIME, REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **ancassign**

1. **Input**

CONTINUATION\_FLAG  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
CONTROL\_AREA  
ANC\_SERVICE\_POINT  
CAPACITY  
SERVICE\_INCREMENT  
AS\_TYPE  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
POSTING\_NAME  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Capacity being sold from each previous assignment)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME  
SELLER\_COMMENTS

2. **Response (acknowledgment)**

RECORD\_STATUS  
CONTINUATION\_FLAG  
ASSIGNMENT\_REF (assigned by TSIP)  
CUSTOMER\_CODE  
CUSTOMER\_DUNS  
CONTROL\_AREA  
ANC\_SERVICE\_POINT  
CAPACITY (Total capacity being reassigned)  
SERVICE\_INCREMENT

AS\_TYPE  
START\_TIME  
STOP\_TIME  
OFFER\_PRICE  
POSTING\_NAME  
REASSIGNED\_REF  
REASSIGNED\_CAPACITY (Capacity being sold from each previous assignment)  
REASSIGNED\_START\_TIME  
REASSIGNED\_STOP\_TIME  
SELLER\_COMMENTS  
ERROR\_MESSAGE

#### 4.3.9 Seller Posting of Ancillary Services

##### 4.3.9.1 Seller Ancillary Services Posting (ancpost)

Seller Ancillary Services Posting (*ancpost*) is used by the Seller to post information regarding the different services that are available for sale by third party Sellers of ancillary services.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **ancpost**

#### 1. Input

CONTROL\_AREA  
SERVICE\_DESCRIPTION  
CAPACITY  
SERVICE\_INCREMENT  
AS\_TYPE  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
SALE\_REF  
OFFER\_PRICE  
SELLER\_COMMENTS

#### 2. Response (acknowledgment)

RECORD\_STATUS  
POSTING\_REF (Assigned by TSIP)  
CONTROL\_AREA  
SERVICE\_DESCRIPTION  
CAPACITY  
SERVICE\_INCREMENT

AS\_TYPE  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
SALE\_REF  
OFFER\_PRICE  
SELLER\_COMMENTS  
ERROR\_MESSAGE

#### 4.3.9.2 Seller Modify Ancillary Services Posting (*ancupdate*)

Seller Modify Ancillary Services Posting (*ancupdate*) is used by the Seller to modify posted information regarding ancillary services that are available for sale by a third party Seller.

SELLER\_CODE and SELLER\_DUNS shall be determined from the registered connection used to input the request.

Template: **ancupdate**

##### 1. **Input**

POSTING_REF	(Required)
CAPACITY	(only if modified)
SERVICE_DESCRIPTION	(only if modified)
START_TIME	(only if modified)
STOP_TIME	(only if modified)
OFFER_START_TIME	(only if modified)
OFFER_STOP_TIME	(only if modified)
SALE_REF	(only if modified)
OFFER_PRICE	(only if modified)
SELLER_COMMENTS	(only if modified)

##### 2. **Response (acknowledgment)**

RECORD\_STATUS  
POSTING\_REF  
CAPACITY  
SERVICE\_DESCRIPTION  
START\_TIME  
STOP\_TIME  
OFFER\_START\_TIME  
OFFER\_STOP\_TIME  
SALE\_REF  
OFFER\_PRICE  
SELLER\_COMMENTS

ERROR\_MESSAGE

### 4.3.10 Informal Messages

#### 4.3.10.1 Provider/Customer Want Ads and Informal Message Posting Request (messagepost)

Provider/Customer Want Ads and Informal Message Posting Request (*messagepost*) is used by Providers and Customers who wish to post a message. The valid entries for CATEGORY shall be defined by providers and shall be listed in the List of CATEGORY Template.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

When the OASIS node is out of service and transmission requests are received by the TP by phone or fax then the CATEGORY=OASIS\_MAINTENANCE\_OUTAGE will be used to document the outage. The VALID\_FROM\_TIME will be the time the outage started and VALID\_TO\_TIME will be the time the outage ended. A list of all transactions that occurred during the outage and entered afterwards will be available through a query of the *transstatus* Template using START\_TIME\_QUEUED=<VALID\_FROM\_TIME> and STOP\_TIME\_QUEUED=<VALID\_TO\_TIME>.

Template: **messagepost**

#### 1. **Input**

SUBJECT  
CATEGORY  
VALID\_FROM\_TIME  
VALID\_TO\_TIME  
MESSAGE (must be specified)

#### 2. **Response** (acknowledgment)

RECORD\_STATUS  
POSTING\_REF (assigned by information provider)  
SUBJECT  
CATEGORY  
VALID\_FROM\_TIME  
VALID\_TO\_TIME  
MESSAGE  
ERROR\_MESSAGE

#### 4.3.10.2 Message (message)

Message (*message*) is used to view a posted Want Ad or Informal Message. The CATEGORY Data Element can be queried.

Template: **message**

1. **Query**

CUSTOMER\_CODE  
CUSTOMER\_DUNS  
POSTING\_REF  
CATEGORY  
VALID\_FROM\_TIME  
VALID\_TO\_TIME  
TIME\_POSTED

2. **Response**

CUSTOMER\_CODE  
CUSTOMER\_DUNS  
POSTING\_REF  
SUBJECT  
CATEGORY  
VALID\_FROM\_TIME  
VALID\_TO\_TIME  
TIME\_POSTED  
CUSTOMER\_NAME  
CUSTOMER\_PHONE  
CUSTOMER\_FAX  
CUSTOMER\_EMAIL  
MESSAGE

#### 4.3.10.3 Provider/Sellers Message Delete Request (*messagedelete*)

Provider/Sellers Message Delete Request (*messagedelete*) is used by Providers and Sellers who wish to delete their message. The POSTING\_REF number is used to determine which message.

CUSTOMER\_CODE and CUSTOMER\_DUNS shall be determined from the registered connection used to input the request.

Template: **messagedelete**

1. **Input**

POSTING\_REF

2. **Response (Acknowledgment)**

RECORD\_STATUS  
POSTING\_REF  
ERROR\_MESSAGE

#### 4.3.10.4 Personnel Transfers (personnel)

The *personnel* Template is used to indicate when personnel are transferred between the merchant function and the Transmission Provider function as required by FERC Statutes and Regulations (18 CFR 37.4(b)(2)).

Template: **personnel**

1. **Query**

TIME\_OF\_LAST\_UPDATE  
START\_TIME\_POSTED  
STOP\_TIME\_POSTED

2. **Response**

POSTING\_NAME  
EMPLOYEE\_NAME  
FORMER\_POSITION  
FORMER\_COMPANY  
FORMER\_DEPARTMENT  
NEW\_POSITION  
NEW\_COMPANY  
NEW\_DEPARTMENT  
DATE\_TIME\_EFFECTIVE  
TIME\_POSTED  
TIME\_OF\_LAST\_UPDATE

#### 4.3.10.5 Discretion (discretion)

The *discretion* Template is used to describe the circumstances when discretion was exercised in applying terms of the tariff, as described in the FERC Statutes and Regulations (18 CFR 37.4(b)(5)(iii)).

Template: **discretion**

1. **Query**

START\_TIME\_POSTED

STOP\_TIME\_POSTED  
START\_TIME  
STOP\_TIME  
SERVICE\_TYPE  
SERVICE\_NAME  
TIME\_OF\_LAST\_UPDATE

2. **Response**

POSTING\_NAME  
RESPONSIBLE\_PARTY\_NAME (name of person granting discretion)  
SERVICE\_TYPE (ancillary or transmission)  
SERVICE\_NAME (make consistent with offering Templates)  
TARIFF\_REFERENCE  
START\_TIME  
STOP\_TIME  
DISCRETION\_DESCRIPTION  
TIME\_POSTED  
TIME\_OF\_LAST\_UPDATE

#### 4.3.10.6 Standards of Conduct (stdconduct)

The *stdconduct* Template indicates when information is disclosed in a manner contrary to the standards of conduct, as described in the FERC Statutes and Regulations (18 CFR 37.4(b)(4)(ii)).

Template: **stdconduct**

1. **Query**

START\_TIME\_POSTED  
STOP\_TIME\_POSTED  
TIME\_OF\_LAST\_UPDATE

2. **Response**

POSTING\_NAME  
RESPONSIBLE\_PARTY\_NAME  
STANDARDS\_OF\_CONDUCT\_ISSUES  
TIME\_POSTED  
TIME\_OF\_LAST\_UPDATE

#### 4.3.11 Audit Log

The OASIS audit log report facility shall be implemented by the definition of the following Templates:

*transofferingaudit* - audit counterpart to *transoffering*  
*ancofferingaudit* - audit counterpart to *ancoffering*  
*scheduledetailaudit* - audit counterpart to *scheduledetail*  
*securityaudit* - audit counterpart to *security*  
*systemdataaudit* - audit counterpart to *systemdata*  
*transstatusaudit* - audit counterpart to *transstatus*  
*ancstatusaudit* - audit counterpart to *ancstatus*

*personnelaudit* - audit counterpart to *personnel*  
*discretionaudit* - audit counterpart to *discretion*  
*stdconductaudit* - audit counterpart to *stdconduct*

Each of these audit Templates is an extension to the OASIS Template definitions of their non-audit counterparts. The requirements for implementation of the audit Templates is defined in the following sections.

#### **4.3.11.1 Query Variables**

Each of the audit Templates defined shall support exactly the same set of Query Variables as defined for their non-audit Template counterpart. As with the standard Template definitions, audit reports may be downloaded in Comma Separated Value (CSV) format by the specification of the OUTPUT\_FORMAT=DATA Query Variable, or may be viewed using a web browser when OUTPUT\_FORMAT=HTML is specified.

#### **4.3.11.2 Audit Report Response Format**

Audit report information shall be returned in response to a valid query request made to any of the audit Templates defined. Query variables may be specified as allowed by each individual Template and shall have the effect of limiting the scope of audit data returned to that set of information selected by that combination of additional Query Variables.

The response to an audit query shall consist of ordered sets of information reflecting both the current information as posted on OASIS and the full history of changes made to that information. These ordered sets of information are organized around the individual postings or "records" returned in response to the applicable non-audit Template. For example, execution of the *transstatus* (or *ancstatus*) Template returns a set of individual records identified by unique ASSIGNMENT\_REF. The *transstatusaudit* Template response is then organized by ASSIGNMENT\_REF and would show all changes made to those Data Elements associated with each individual ASSIGNMENT\_REF record. Execution of the *transoffering* (or *ancoffering* or *systemdata*) Template returns a set of individual records identified by unique POSTING\_REF. The *transofferingaudit* Template response is then organized by POSTING\_REF and would show all changes made to those Data Elements associated with each individual POSTING\_REF record.

The specific audit report response format is detailed in the following sections.

### 4.3.11.3 Comma Separated Value (CSV) Format

A CSV formatted audit Template response shall comply with all the general provisions and specifications defined previously for a CSV formatted response. The CSV response records shall be organized in sets of records containing both the latest information posted on OASIS and all changes made to that information over time.

#### 4.3.11.3.1 CSV Response Header Records

The following additional Data Element names shall be included as the first set of Data Elements in the COLUMN\_HEADERS record and the corresponding Data Element values shall be included in each subsequent Data Record (row) returned in the audit response:

RECORD\_TYPE  
TIME\_OF\_LAST\_UPDATE  
MODIFYING\_COMPANY\_CODE  
MODIFYING\_NAME

These Data Elements shall precede the standard Data Elements associated with the specific Template being invoked.

The RECORD\_TYPE Data Element shall take on one of the following restricted values:

- I** - denotes a record of information as it appeared on its initial **I**nsertion (posting) on OASIS
- U** - denotes a record of information as it appeared immediately following an **U**ppdate to the posted information
- D** - denotes a record of any **D**eleted information as it last appeared on OASIS.

The TIME\_OF\_LAST\_UPDATE Data Element shall contain the time that the Template Data Elements were inserted, updated or deleted to the values reported in that record (row) of the response. This Data Element is identical to the standard Template TIME\_OF\_LAST\_UPDATE Data Element, and is included as part of the fixed audit specific Data Element columns to aid users in sorting the audit response records.

The MODIFYING\_COMPANY\_CODE and MODIFYING\_NAME Data Elements shall contain the identity of the entity (by the appropriate 4-6 character customer/provider code) and the person that inserted, updated or deleted the Data Elements to the values reported in that record (row) of the response. In the event the modification of posted information cannot be associated with a specific OASIS user (e.g., as a result of an automated back-end process), the MODIFYING\_NAME Data Element may be null.

Immediately following the MODIFYING\_NAME column header, each of the standard non-audit counterpart Template's Data Elements shall be listed in the exact sequence defined for that non-audit Template.

Finally, OASIS implementations may include additional Data Elements identified by unique column headers appended after the fixed audit and standard Template Data Elements. These additional Data Elements may be used to convey implementation specific information maintained in the OASIS database in association with the data being audited.

#### **4.3.11.3.2 CSV Data Records**

In formatting an audit response, OASIS shall collect and order information into sets of Data Records (rows). Each set of records returned shall include a record corresponding to the information as original inserted into the OASIS database denoted by a RECORD\_TYPE of "I", and as many additional records with RECORD\_TYPE of "U" corresponding to each update made to that information over time. If applicable, a record may also be returned in the set with a RECORD\_TYPE of "D" if the corresponding information was effectively deleted from the database.

The number of sets of audit report records returned in response to an audit query shall be determined by the number and type of additional Template Query Variables specified by the user.

#### **4.3.11.3.3 CSV Continuation Records**

Continuation records are used in certain standard Phase 1-A Templates to report repeating Data Elements associated with a single OASIS transaction such as demand profiles or the reassignment of rights on the secondary market. The first (CONTINUATION\_FLAG=N) record and all associated continuation (CONTINUATION\_FLAG=Y) records shall be treated as a group when generating the response to an audit query.

To minimize the volume of information reported in an audit response, implementations may elect to suppress repeating the contents of information contained in continuation records if none of the Data Elements associated with those continuation records were modified. If, however, the Data Element(s) to be reported by an audit record are contained in one or more of the continuation records (e.g., a change was made to a transmission reservation's demand profile), the first (CONTINUATION\_FLAG=N) record followed by the entire group of continuation (CONTINUATION\_FLAG=Y) records shall be reported.

#### **4.3.11.3.4 CSV Response Header Records**

Finally, OASIS implementations may include additional Data Elements identified by unique column headers appended after the fixed audit and standard Template Data Elements. These additional Data

Elements may be used to convey implementation specific information maintained in the OASIS database in association with the data being audited.

#### 4.3.11.4 HTML Output

Specification of the Query Variable OUTPUT\_FORMAT=HTML shall minimally result in an audit report formatted identically to the CSV Format (OUTPUT\_FORMAT=DATA) with the exception that the response shall be returned using the HTTP header "**Content-type: text/plain**" specification. This will result in the CSV Data Records being rendered in simple text within the user's web-browser.

More sophisticated HTML formatted responses to audit queries may be provided by the TSIPs at their discretion.

#### 4.3.11.5 Special Audit Template Considerations

##### Transoffering

The *transoffering* Template is used to convey information on transmission services offered for sale as well as the availability of transmission capability (TTC/ATC). The proposed audit reporting scheme may prove inadequate to generate audits of both the commercial aspects of offers posted on OASIS (i.e., price, etc.) and the reliability aspects associated with those offers (i.e., ATC) depending on how these two different types of information are represented internally by each OASIS node.

For those OASIS implementations that handle TTC/ATC information separately from the posting of commercial offers of service, audit reports generated by the *transofferingaudit* Template may be limited to only reporting changes to the Data Elements associated with the commercial aspects of the offer (e.g., OFFER\_PRICE, OFFER\_START\_TIME, etc.), and may return a null value for the CAPACITY Data Element. These nodes shall use the *systemdataaudit* Template audit reporting facility to allow for the full auditing of changes made to TTC and ATC postings as required under Federal Regulations.

##### Scheduledetail

The *scheduledetail* Template combines information from one or more transmission reservations and transmission security event postings (e.g., TLRs) with information posted on actual scheduled use of the transmission system. Audit information related to changes made to a given transmission reservation shall be auditable using the *transstatusaudit* Template. Audit information related to the posting of transmission security events that led to a curtailment or interruption of service, or the denial of a request to schedule service shall be auditable using the *securityaudit* Template. Therefore, the *scheduledetailaudit* Template shall only be

required to report changes to the following Data Elements associated with the *scheduledetail* Template:

TRANSACTION\_ID  
START\_TIME  
STOP\_TIME  
SCHEDULE\_REQUESTED  
SCHEDULE\_GRANTED  
ASSIGNMENT\_REF  
    PROVIDER\_ACTION  
    SCHEDULE\_LIMIT  
    CURTAILMENT\_OPTIONS  
    SECURITY\_REF

#### 4.4 FILE REQUEST AND FILE DOWNLOAD EXAMPLES

In the examples, the end-of-line (eol) character is represented by the character, " ← ". This symbol may appear different on displays or printouts.

##### 4.4.1 File Example for Hourly Offering

Example of the request to Primary Provider, aaa, and response for Seller, wxyz, for PATH\_NAME "W/AAA/PATH-ABC/" for April 10, 1996 from 8 a.m. to 3 p.m. (Note that the PATH\_NAME consists of a REGION\_CODE, PRIMARY\_PROVIDER\_CODE, PATH\_CODE, and an OPTIONAL\_CODE, separated with a slash, "/".) The VERSION for this release is 1.4.

The request is in the form of a URL query string and the response is an ASCII delimited file.

##### 1. Query

```
http://(OASIS Node name)/OASIS/aaa/data/transoffering? ver=1.2&templ=transoffering&
fmt=data&pprov=AAAA &pprovduns=123456789& path=W/AAA/ABC// &seller=WXYZAA
&sellerduns=987654321& POR=aaa& POD=bbb& servinre=hourly& TSCLASS1=firm
&TSCLASS2=non-firm&tz=PD&stime=19960410080000PD&sptime= 19960410150000PD
```

##### 2. Response Data

```
REQUEST-STATUS=2005 (Successful)
TIME_STAMP=19960409113526PD ←
VERSION=1.4←
TEMPLATE=transoffering←
OUTPUT_FORMAT=DATA ←
PRIMARY_PROVIDER_CODE=AAAA←
PRIMARY_PROVIDER_DUNS=123456789←
DATA_ROWS=14←
```

COLUMN\_HEADERS=TIME\_OF\_LAST\_UPDATE,SELLER\_CODE,SELLER\_DUNS,PATH\_NAME,  
POINT\_OF\_RECEIPT,POINT\_OF\_DELIVERY,INTERFACE\_TYPE,OFFER\_START\_TIME, OFFER\_STOP\_TIME,  
START\_TIME,STOP\_TIME, CAPACITY, SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD,  
TS\_SUBCLASS, SALE\_REF, POSTING\_REF, CEILING\_PRICE, OFFER\_PRICE, PRICE\_UNITS,  
SERVICE\_DESCRIPTION,SELLER\_NAME,SELLER\_PHONE,SELLER\_FAX, SELLER-  
EMAIL,SELLER\_COMMENTS ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
080000PD,19960410090000PD,300, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A, A001,  
1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
080000PD,19960410090000PD,300, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A,A001,1.50,  
1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
090000PD,1996041010000PD,300, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A,  
N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
090000PD,1996041010000PD,300, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A,A001,1.50,  
1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
100000PD,19960410110000PD,300, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A,  
N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
100000PD,19960410110000PD,300, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A,A001,1.50,  
1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
110000PD,19960410120000PD,300, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A,  
N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
110000PD,19960410120000PD,300, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A,A001,1.50,  
1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT ←  
...  
...  
...  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
140000PD,19960410150000PD,300, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A,  
N/A,A001,1.50,1.35,MW,N/A,N/A,N/A,N/A,N/A,10% DISCOUNT ←  
19960409030000PD,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,19960402080000PD,19960410080000PD,19960410  
140000PD,19960410150000PD,300, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, N/A,A001,1.50,  
1.35,MW,N/A,N/A,N/A,N/A,N/A, 10% DISCOUNT ←

#### 4.4.2 File Example for Hourly Schedule Data

This example shows a request for the hourly schedule data from Primary Provider, AAAA, related to the seller, WXYZ, for the period 10 a.m. to 3 p.m. on April 10, 2000.

There are two identical requests examples using two slightly different methods. The first request is using a HTTP URL request string through an HTML GET method. The second request is a similar example using fetch\_http from a file using a POST method.

##### 1. Query

URL Request (HTTP method=GET)

http://(OASIS Node name)/OASIS/aaaa/data/scheduledetail? ver=1.4& pprov=AAAA& templ=scheduledetail& fmt=data &pprovduns=123456789 &path=W/AAA/ABC//& seller=WXYZ &por=BBB &pod=CCC& tz=PD& stime=20000410100000PD& sptime=20000410150000PD

URL Request (HTTP method=POST)

```
$ fetch_http http://(OASIS Node name)/OASIS/aaaa/data/OASISdata -f c:/OASIS/wxyz/upload/in-file.txt
```

Where *in-file.txt* contains the following:

```
ver=1.4& pprov=AAAA& templ=scheduledetail& fmt=data &pprovduns=123456789  
&path=W/AAA/ABC//& seller=WXYZ &por=BBB &pod=CCC& tz=PD&  
stime=20000410100000PD& sptime=20000410150000PD
```

## 2. Response Data

```
REQUEST_STATUS=200←  
ERROR_MESSAGE=No error.←  
TIME_STAMP=20000410160523ES←  
VERSION=1.4←  
TEMPLATE=scheduledetail←  
OUTPUT_FORMAT=DATA←  
PRIMARY_PROVIDER_CODE=AAAA←  
PRIMARY_PROVIDER_DUNS=123456789←  
RETURN_TZ=PD←  
DATA_ROWS=3←  
COLUMN_HEADERS=CONTINUATION_FLAG, TIME_OF_LAST_UPDATE, SCHEDULE_REF,  
TRANSACTION_ID, PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY,  
GCA_CODE, LCA_CODE, SOURCE, SINK, SCHEDULE_PRIORITY, START_TIME,  
STOP_TIME, SCHEDULE_REQUESTED, SCHEDULE_GRANTED, ASSIGNMENT_REF,  
SELLER_CODE, SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS,  
AFFILIATE_FLAG, SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD,  
TS_WINDOW, TS_SUBCLASS, NERC_CURTAILMENT_PRIORITY,  
OTHER_CURTAILMENT_PRIORITY, CAPACITY_USED, PROVIDER_ACTION,  
SCHEDULE_LIMIT, CURTAILMENT_OPTIONS, SECURITY_REF, INITIATING_PARTY,  
RESPONSIBLE_PARTY, PROCEDURE_NAME, PROCEDURE_LEVEL, FACILITY_LOCATION,  
FACILITY_NAME, FACILITY_CLASS, FACILITY_LIMIT_TYPE←  
N, 20000409030000PD,12345,2233, W/AAA/ABC//, BBB, CCC,,,,,1, 20000410100000PD,  
20000410110000PD,300,300,856743, wxyz,987654321, WXYZAA,987654322, Y, HOURLY,  
NON_FIRM, POINT_TO_POINT, OFF_PEAK, FIXED,,1,1,300,,,,,,,,,,,,←  
N, 20000409030000PD,12346,2233, W/AAA/ABC//, BBB, CCC,,,,,1, 20000410130000PD,  
20000410140000PD,300,300,856743,wxyz,987654321, WXYZAA,987654322, Y, HOURLY,  
NON_FIRM, POINT_TO_POINT, OFF_PEAK, FIXED,,1,1,300,,,,,,,,,,,,←  
N, 20000409030000PD,12347,2233, W/AAA/ABC//, BBB, CCC,,,,,1, 20000410140000PD,  
20000410150000PD,300,300,856743,wxyz,987654321, WXYZAA,987654322, Y, HOURLY,  
NON_FIRM, POINT_TO_POINT, OFF_PEAK, FIXED,,1,1,300,,,,,,,,,,,,←
```

### 4.4.3 Customer Posting a Transmission Service Offering

This example shows how a Customer would post for sale the transmission service that was purchased previously. The Seller would create a file and upload the file using the FETCH\_HTTP program to send a file to the OASIS Node of the Primary Provider.

#### 1. Input:

```
VERSION=1.4←
TEMPLATE=transpost←
OUTPUT_FORMAT=DATA ←
PRIMARY_PROVIDER_CODE=AAAA←
PRIMARY_PROVIDER_DUNS=123456789←
DATA_ROWS=1←
COLUMN_HEADERS=PATH_NAME, POINT_OF_RECEIPT, POINT_OF_DELIVERY,
INTERFACE_TYPE, CAPACITY, SERVICE_INCREMENT, TS_CLASS, TS_TYPE, TS_PERIOD,
TS_SUBCLASS, START_TIME, STOP_TIME, OFFER_START_TIME, OFFER_STOP_TIME,
SALE_REF, OFFER_PRICE, SERVICE_DESCRIPTION, SELLER_COMMENTPF←
WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,150, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, N/A,, 19960402080000PD,19960410080000PD,
19960410080000PD,19960410150000PD, A123,.90,N/A,"As Joe said, ""It is a good buy"""←
```

FETCH\_HTTP Command to send posting

```
$ fetch_http http://(OASIS Node name)/OASIS/abcd/data/transrequest -f
c:/OASIS/abcd/upload/post.txt
```

#### 2. Response Data

```
REQUEST-STATUS=200 ← (Successful)
TIME_STAMP=19960409113526PD ←
VERSION=1.4←
TEMPLATE=transpost←
OUTPUT_FORMAT=DATA ←
PRIMARY_PROVIDER_CODE=AAAA←
PRIMARY_PROVIDER_DUNS=123456789←
DATA_ROWS=1←
COLUMN_HEADERS=RECORD_STATUS, PATH_NAME, POINT_OF_RECEIPT,
POINT_OF_DELIVERY, INTERFACE_TYPE, CAPACITY, SERVICE_INCREMENT, TS_CLASS,
TS_TYPE, TS_PERIOD, TS_SUBCLASS, START_TIME, STOP_TIME, OFFER_START_TIME,
OFFER_STOP_TIME, SALE_REF, OFFER_PRICE, SERVICE_DESCRIPTION,
SELLER_COMMENTS, ERROR_MESSAGE←
200,WXYZ,987654321,W/AAA/ABC//,N/A,N/A,E,150, HOURLY, FIRM, POINT_TO_POINT,
OFF_PEAK, N/A, 19960402080000PD,19960410080000PD,
19960410080000PD,19960410150000PD, A123,.90,N/A, "As Joe said, ""It is a good buy""", No
Error←
```

#### 4.4.4 Example of Re-aggregating Purchasing Services using Reassignment

The following examples do not show the complete Template information, but only show those elements of the Template of interest to the example.

- a. Customer #1, "BestE" requests the purchase of 150 MW Firm ATC for 8 a.m. to 5 p.m. for \$1.00 from a Primary Provider (*transrequest*).

```
TEMPLATE=transrequest↵
CUSTOMER_CODE=BestE↵
CAPACITY=150↵
TS_CLASS="FIRM"↵
START_TIME="1996050708000000PD"↵
STOP_TIME="1996050717000000PD"↵
BID_PRICE="$1.00"↵
```

The Information Provider assigns ASSIGNMENT\_REF = 5000 on acknowledgment.

- b. Customer #1 purchases 120 MW ATC Non-firm for 3 p.m. to 9 p.m. for \$.90 (*transrequest*). The Information Provider assigns the ASSIGNMENT\_REF=5001 when the request for purchase is made and is shown in the acknowledgment.

```
TEMPLATE="transrequest"↵
CUSTOMER_CODE="BestE"↵
CAPACITY=120↵
TS_CLASS="NON-FIRM"↵
START_TIME="1996050715000000PD"↵
STOP_TIME="1996050721000000PD"↵
BID_PRICE="$1.05"↵
```

- c. Customer #1 becomes Seller #1 and post the Transmission service of 100 MW ATC Non-firm capacity from 8 a.m. to 9 p.m. for resale at \$.90/MW-hour.

```
TEMPLATE="transpost"↵
SELLER_CODE="BestE"↵
CAPACITY=100↵
TS_CLASS="NON-FIRM"↵
START_TIME="1996050708000000PD"↵
STOP_TIME="1996050721000000PD"↵
SALE_REF="BEST100"↵
OFFER_PRICE=.90↵
SELLER_COMMENTS="aggregating two previous purchases"↵
```

- d. Customer #2 then requests purchase of 100 MW Non-firm from Reseller #1 from 8 a.m. to 6 p.m. for \$0.90/MW-hour (*transrequest*).

```
TEMPLATE="transrequest"↵
CUSTOMER_CODE="Whlsle"↵
SELLER_CODE="BestE"↵
CAPACITY=100↵
TS_CLASS="NON-FIRM"↵
```

```

START_TIME="1996050708000000PD"←
STOP_TIME="1996050721000000PD"←
SALE_REF="BEST100"←
DEAL_REF="WPC100"←
BID_PRICE=.90←
CUSTOMER_COMMENTS="Only need service until 6 p.m."←

```

The Information Provider provides the ASSIGNMENT\_REF=5002 for this transaction.

- e. Seller informs the Information Provider of the reassignment of the previous transmission rights when the seller accepts the customer purchase request (*transsell*).

```

TEMPLATE="transsell"←
CUSTOMER_CODE="Whlsle"←
SELLER_CODE="BestE"←
ASSIGNMENT_REF=5002←
STATUS="Accepted"←
REASSIGNED_REF1=5000←
REASSIGNED_CAPACITY1=100←
REASSIGNED_START_TIME1="199605070800PD"←
REASSIGNED_STOP_TIME1="199605071700PD"←
REASSIGNED_REF2=5001←
REASSIGNED_CAPACITY2=100←
REASSIGNED_START_TIME2="199605071700PD"←
REASSIGNED_STOP_TIME2="199605071800PD"←

```

#### 4.4.5 File Examples of the Use of Continuation Records

##### a. Basic Continuation Records

**The first example** of the use of Continuation Records is for the *transrequest* Template submitted by a Seller for purchase of a transmission reservation spanning 16 hours from 06:00 to 22:00 with "ramped" demand at beginning and end of time period. Two additional reservations appear prior to and following the profile to demonstrate the handling of ASSIGNMENT\_REF by the OASIS Node.

Only the following fields may be redefined in a continuation record for the *transrequest* Template: CAPACITY\_GRANTED, START\_TIME, STOP\_TIME. Specification of any values corresponding to COLUMN\_HEADERS other than CAPACITY-GRANTED, START\_TIME, and STOP\_TIME will be ignored, however commas must be included to properly align the CAPACITY\_GRANTED, START\_TIME and STOP\_TIME fields.

##### Input:

```

VERSION=1.4←
TEMPLATE=transrequest←
OUTPUT_FORMAT=DATA←
PRIMARY_PROVIDER_CODE=AEP←
PRIMARY_PROVIDER_DUNS=123456789←
RETURN_TZ=ES←
DATA_ROWS=7←
COLUMN_HEADERS=CONTINUTATION_FLAG,SELLER_CODE,SELLER_DUNS,PATH_NAME,
POINT_OF_RECEIPT,POINT_OF_DELIVERY,SOURCE,SINK,CAPACITY_REQUESTED,

```

SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_WINDOW, TS\_SUBCLASS,  
STATUS\_NOTIFICATION, START\_TIME, STOP\_TIME, BID\_PRICE, PRECONFIRMED, ANC\_SVC\_LNK,  
POSTING\_REF, SALE\_REF, REQUEST\_REF, DEAL\_REF, CUSTOMER\_COMMENTS,  
REQUEST\_TYPE, REASSIGNED\_REF←  
N, AEP, 123456789, ABC/XY, CE, MECS,,,35, DAILY, FIRM, POINT\_TO\_POINT, FULL\_PERIOD, FIXED,,  
pub/AEP/incoming,20000423000000ES,20000424000000ES,24.5, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, Standard daily reservation,  
ORIGINAL,←  
N, AEP, 123456789, ABC/XY, CE, AMPO,,,5, HOURLY, NON-FIRM, POINT\_TO\_POINT, FULL\_PERIOD, FIXED,,  
pub/AEP/incoming,20000423060000ES,20000423070000ES,2.5, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, First  
piece of profile spanning 5 records, ORIGINAL,←  
Y,,,,,10,,,,, ,20000423070000ES,20000423080000ES,,,,, Second piece,,←  
Y,,,,,15,,,,, ,20000423080000ES,20000423200000ES,,,,, Third piece,,←  
Y,,,,,10,,,,, ,20000423200000ES,20000423210000ES,,,,, Fourth piece,,←  
Y,,,,,5,,,,, ,20000423210000ES,20000423220000ES,,,,, Fifth piece,,←  
N, AEP, 123456789, ABC/XY, CE, MECS, , ,20, HOURLY, NON-FIRM, POINT\_TO\_POINT, FULL\_PERIOD,  
FIXED,, pub/AEP/incoming,20000423040000ES,20000423160000ES,2, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, Standard hourly reservation  
after profiled reservation, ORIGINAL,←

**Response:**

REQUEST\_STATUS=200←  
ERROR\_MESSAGE=Successfully updated.←  
TIME\_STAMP=20000422160523ES←  
VERSION=1.4←  
TEMPLATE=transrequest←  
OUTPUT\_FORMAT=DATA←  
PRIMARY\_PROVIDER\_CODE=AEP←  
PRIMARY\_PROVIDER\_DUNS=123456789←  
RETURN\_TZ=ES←  
DATA\_ROWS=7←  
COLUMN\_HEADERS=RECORD\_STATUS, CONTINUATION\_FLAG, ASSIGNMENT\_REF,  
SELLER\_CODE, SELLER\_DUNS, PATH\_NAME, POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY, SOURCE,  
SINK, CAPACITY\_REQUESTED, SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_WINDOW,  
TS\_SUBCLASS, STATUS\_NOTIFICATION, START\_TIME, STOP\_TIME, BID\_PRICE, PRECONFIRMED,  
ANC\_SVC\_LNK, POSTING\_REF, SALE\_REF, REQUEST\_REF, DEAL\_REF, CUSTOMER\_COMMENTS,  
REQUEST\_TYPE, REASSIGNED\_REF, ERROR\_MESSAGE←  
200,N,8234, AEP, 123456789, ABC/XY, CE, MECS,,,35, DAILY, FIRM, POINT\_TO\_POINT, FULL\_PERIOD, FIXED,,  
pub/AEP/incoming,20000423000000ES,20000424000000ES,24.5, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, Standard daily reservation,  
ORIGINAL,, No error←  
200,N,8235, AEP, 123456789, ABC/XY, CE, AMPO,,,5, HOURLY, NON-FIRM, POINT\_TO\_POINT, FULL\_PERIOD,  
FIXED,, pub/AEP/incoming,20000423060000ES,20000423070000ES,2.5, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, First piece of profile  
spanning 5 records, ORIGINAL,, No error←  
200,Y,8235,,,,,10,,,,,20000423070000ES,20000423080000ES,,,,, Second piece,, No error←  
200,Y,8235,,,,,15,,,,,20000423080000ES,20000423200000ES,,,,, Third piece,, No error←  
200,Y,8235,,,,,10,,,,,20000423200000ES,20000423210000ES,,,,, Fourth piece,, No error←  
200,Y,8235,,,,,5,,,,,20000423210000ES,20000423220000ES,,,,, Fifth piece,, No error←  
200,N,8236, AEP, 123456789, ABC/XY, CE, MECS,,,20, HOURLY, NON-FIRM, POINT\_TO\_POINT, FULL\_PERIOD,  
FIXED,, pub/AEP/incoming,20000423040000ES,20000423160000ES,2, Y,  
SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, P0123 , S123, R765, D123, Standard hourly reservation  
after profiled reservation, ORIGINAL,, No error←





DATA\_ROWS=2←  
 COLUMN\_HEADERS=CONTINUATION\_FLAG, CUSTOMER\_CODE, CUSTOMER\_DUNS,  
 PATH\_NAME, POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY, SOURCE, SINK,  
 CAPACITY\_REQUESTED, CAPACITY\_GRANTED, SERVICE\_INCREMENT, TS\_CLASS,  
 TS\_TYPE, TS\_PERIOD, TS\_WINDOW, TS\_SUBCLASS, START\_TIME, STOP\_TIME,  
 OFFER\_PRICE, ANC\_SVC\_LNK, POSTING\_NAME, REASSIGNED\_REF,  
 REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, REASSIGNED\_STOP\_TIME,  
 SELLER\_COMMENTS, SELLER\_REF←  
 N, ACSTMR,987654321, , CE, VP,,,10,10, HOURLY, NON-FIRM, POINT\_TO\_POINT,  
 OFF\_PEAK, FIXED,, 20000423000000ES, 20000423060000ES,2,  
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, Jane Doe ,7019,10,  
 20000423000000ES, 20000423060000ES, Seller comments go here, S123←  
 Y,,,,,,10,10,,,,,, 20000423220000ES, 20000424000000ES,,,,7019,10, 20000423220000ES,  
 20000424000000ES,,←

**Response:**

REQUEST\_STATUS=200←  
 ERROR\_MESSAGE=Successfully updated.←  
 TIME\_STAMP=20000422160523ES←  
 VERSION=1.4←  
 TEMPLATE=transassign←  
 OUTPUT\_FORMAT=DATA←  
 PRIMARY\_PROVIDER\_CODE=AEP←  
 PRIMARY\_PROVIDER\_DUNS=123456789←  
 RETURN\_TZ=ES←  
 DATA\_ROWS=2←  
 COLUMN\_HEADERS=RECORD\_STATUS,CONTINUATION\_FLAG,ASSIGNMENT\_REF,  
 CUSTOMER\_CODE, CUSTOMER\_DUNS, PATH\_NAME, POINT\_OF\_RECEIPT,  
 POINT\_OF\_DELIVERY, SOURCE, SINK, CAPACITY\_REQUESTED, CAPACITY\_GRANTED,  
 SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_WINDOW, TS\_SUBCLASS,  
 START\_TIME, STOP\_TIME, OFFER\_PRICE, ANC\_SVC\_LNK, POSTING\_NAME,  
 REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME,  
 REASSIGNED\_STOP\_TIME, SELLER\_COMMENTS, SELLER\_REF5, ERROR\_MESSAGE←  
 200,N,8207, ACSTMR,987654321, , CE, VP,,,10,10, HOURLY, NON-FIRM, POINT\_TO\_POINT,  
 OFF\_PEAK, FIXED,, 20000423000000ES, 20000423060000ES,2,  
 SC:(AEP:RQ);RV:(AEP:RQ);RF:(FT);EI:(FT);SP:(FT);SU:(FT);, Jane Doe ,7019,10,  
 20000423000000ES, 20000423060000ES, Seller comments go here, S1235, No error←  
 200,Y,8207,,,,,,10,10,,,,,, 20000423220000ES, 20000424000000ES,,,,7019,10, 20000423220000ES,  
 20000424000000ES,,5, No error←

**d. Query of Transmission Reservation Status:**

The following typical response to a *transstatus* query might be delivered for 4/23 based on prior examples. Note that the only fields returned in "continuation" records are, ASSIGNMENT\_REF,

CAPACITY\_REQUESTED, CAPACITY\_GRANTED, START\_TIME , STOP\_TIME , REASSIGNED\_REF, REASSIGNED\_CAPACITY, REASSIGNED\_START\_TIME, and REASSIGNED\_STOP\_TIME (price fields are debatable).

**Input:**

<appropriate query name/value pairs to return reservations for 4/23>

**Response:**

```
REQUEST_STATUS=200←
ERROR_MESSAGE=No error.←
TIME_STAMP=20000423160523ES←
VERSION=1.4←
TEMPLATE=transstatus←
OUTPUT_FORMAT=DATA←
PRIMARY_PROVIDER_CODE=AEP←
PRIMARY_PROVIDER_DUNS=123456789←
RETURN_TZ=ES←
DATA_ROWS=11←
COLUMN_HEADERS=CONTINUATION_FLAG, ASSIGNMENT_REF, SELLER_CODE,
SELLER_DUNS, CUSTOMER_CODE, CUSTOMER_DUNS, AFFILIATE_FLAG, PATH_NAME,
POINT_OF_RECEIPT, POINT_OF_DELIVERY, SOURCE, SINK, CAPACITY_REQUESTED,
CAPACITY_GRANTED, SERVICE_INCREMENT, TS_CLASS, TS_TYPE,
TS_PERIOD,TS_WINDOW, TS_SUBCLASS, NERC_CURTAILMENT_PRIORITY,
OTHER_CURTAILMENT_PRIORITY, START_TIME , STOP_TIME, CEILING_PRICE,
OFFER_PRICE, BID_PRICE,PRICE_UNITS, PRECONFIRMED, ANC_SVC_LINK,
ANC_SVC_REQ, POSTING_REF, SALE_REF, REQUEST_REF,
DEAL_REF,IMPACTED,REQUEST_TYPE,RELATED_REF, NEGOTIATED_PRICE_FLAG,
STATUS,STATUS_NOTIFICATION, STATUS_COMMENTS, TIME_QUEUED,
TIME_OF_LAST_UPDATE, PRIMARY_PROVIDER_COMMENTS,SELLER_REF,
SELLER_COMMENTS, CUSTOMER_COMMENTS, SELLER_NAME, SELLER_PHONE,
SELLER_FAX, SELLER_EMAIL, CUSTOMER_NAME, CUSTOMER_PHONE,
CUSTOMER_FAX, CUSTOMER_EMAIL, REASSIGNED_REF, REASSIGNED_CAPACITY,
REASSIGNED_START_TIME , REASSIGNED_STOP_TIME←
N,8207, RSELLR,234567890, ACSTMR,987654321, N, , CE, VP, ,,10,10, HOURLY, FIRM,
POINT_TO_POINT, OFF_PEAK,,,,, 20000423000000ES, 20000423060000ES,2.25,2,2,$/MW, N,
SC:(AEP:AR:121);RV:(AEP:AR:122);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,
SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, ,S1235, , ,0, RESALE,, L, CONFIRMED,, ,
20000422121354ES, 20000422123054ES, TP Comments,, Seller comments go here, Customer
comments, Joe Smith, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567,
(999)-123-8823,,7019,10, 20000423000000ES, 20000423060000ES←
Y,8207,,,,,,,,,10,10,,,,,,,,, 20000423220000ES, 20000424000000ES,,,,,,,,,,,,,,,,,,,,,7019,10,
20000423220000ES, 20000424000000ES←
N,8234, AEP,123456789, CUSTMR,345678912, N, , CE, MECS, ,,35,35, DAILY, FIRM,
POINT_TO_POINT,FULL_PERIOD,FIXED,,,,, 20000423000000ES,
```

20000423060000ES,42,24.5,24.5,\$/MW, N,  
SC:(AEP:AR:123);RV:(AEP:AR:124);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,  
SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, ORIGINAL,, L, CONFIRMED,  
pub/AEP/incoming,, 20000422131354ES, 20000422133354ES, Standard daily reservation,, System  
Operator, Customer comments, Frank Orth, (999)-123-4567, (999)-123-1231, jsmith@xyz.com, Jane  
Doe, (999)-123-4567, (999)-123-8823,,7019,10, 20000423000000ES, 20000423060000ES←  
N,8235, AEP,123456789, CUSTMR,345678912, N, , CE, AMPO, ,,5,5, HOURLY, NON-FIRM,  
POINT\_TO\_POINT,FULL\_PERIOD,FIXED,,,, 20000423060000ES,  
20000423070000ES,2.5,2.5,2.5,\$/MW, N,  
SC:(AEP:AR:125);RV:(AEP:AR:126);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,  
SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, ORIGINAL,,, CONFIRMED,  
pub/AEP/incoming,, 20000422160523ES, 20000422170523ES, Profile verified,, First piece, Customer  
comments, System Operator, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-  
123-4567, (999)-123-8823,,7019,10, 20000423000000ES, 20000423060000ES←  
Y,8235,,,,,,,,,10,10,,,,,,,,, 20000423070000ES, 20000423080000ES,,,,,,,,,,,,,←  
Y,8235,,,,,,,,,15,15,,,,,,,,, 20000423080000ES, 20000423200000ES,,,,,,,,,,,,,←  
Y,8235,,,,,,,,,10,10,,,,,,,,, 20000423200000ES, 20000423210000ES,,,,,,,,,,,,,←  
Y,8235,,,,,,,,,5,5,,,,,,,,, 20000423210000ES, 20000423220000ES,,,,,,,,,,,,,←  
N,8236, AEP,123456789, CUSTMR,345678912, N, , CE, VP, ,,20,20, HOURLY,NON\_FIRM,  
POINT\_TO\_POINT,FULL\_PERIOD,FIXED,,,, 20000424040000ES,  
20000424160000ES,2.5,2.5,2.5,\$/MW, N,  
SC:(AEP:AR:127);RV:(AEP:AR:128);RF:(FT);EI:(FT);SP:(FT);SU:(FT);,  
SC:M;RV:M;RF:U;EI:U;SP:U;SU:U;, P0123 , S123, R765, D123,0, ORIGINAL,,, CONFIRMED,  
pub/AEP/incoming,, 20000422160723ES, 20000422171523ES, Bid price refused,, Negotiated  
OFFER\_PRICE accepted,, Joe Smith, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe,  
(999)-123-4567, (999)-123-8823,,7019,20, 20000423040000ES, 20000423080000ES←  
Y,8236,,,,,,,,,7880,10, 20000423080000ES, 20000423160000ES←  
Y,8236,,,,,,,,,7019,10, 20000423080000ES, 20000423160000ES←

COLUMN\_HEADERS= CONTINUATION\_FLAG, ASSIGNMENT\_REF, SELLER\_CODE,  
SELLER\_DUNS, CUSTOMER\_CODE, CUSTOMER\_DUNS, AFFILIATE\_FLAG, PATH\_NAME,  
POINT\_OF\_RECEIPT, POINT\_OF\_DELIVERY, SOURCE, SINK, CAPACITY,  
SERVICE\_INCREMENT, TS\_CLASS, TS\_TYPE, TS\_PERIOD, TS\_SUBCLASS, START\_TIME ,  
STOP\_TIME, CEILING\_PRICE, OFFER\_PRICE, BID\_PRICE, PRECONFIRMED,  
ANC\_SVC\_LINK, POSTING\_REF, SALE\_REF, REQUEST\_REF, DEAL\_REF,  
NEGOTIATED\_PRICE\_FLAG, STATUS, STATUS\_COMMENTS, TIME\_QUEUED,  
TIME\_OF\_LAST\_UPDATE, PRIMARY\_PROVIDER\_COMMENTS, SELLER\_COMMENTS,  
CUSTOMER\_COMMENTS, SELLER\_NAME, SELLER\_PHONE, SELLER\_FAX,  
SELLER\_EMAIL, CUSTOMER\_NAME, CUSTOMER\_PHONE, CUSTOMER\_FAX,  
CUSTOMER\_EMAIL, REASSIGNED\_REF, REASSIGNED\_CAPACITY,  
REASSIGNED\_START\_TIME , REASSIGNED\_STOP\_TIME←  
N, 8207, Rseler, 456123789, ACust, 987654321, N, , CE, VP, , , 10, HOURLY, FIRM,  
POINT\_TO\_POINT, OFF\_PEAK, N/A, 19970423000000ES, 19970423060000ES, 2.25, 2.00, 6.20,  
N,SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(cust:R234); SU:(cust:R345), , , , N,  
CONFIRMED, , 19970422121354ES, , TP Comments, Seller comments go here, Customer comments,

Joe Smith, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-8823, , 7019, 10, 19970423000000ES, 19970423060000ES ←  
Y,,,,,,,,,,,,,10,,,,,,,,, 19970423220000ES, 19970424000000ES,,,,,,,,,,,,, 7019, 10, 19970423220000ES, 19970424000000ES←  
N, 8234, Rseler, 456123789, ACust, 987654321, N, , CE, MECS, , , 35 DAILY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, 19970423000000ES, 19970423060000ES, 42.00, 24.50, 24.50, N, SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(cust:R234); SU:(cust:R345), , , , N, CONFIRMED, , 19970422121354ES, , Standard daily reservation, System Operator, Customer comments, Frank Orth, (999)-123-4567, (999)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-8823, , 7019, 10, 19970423000000ES, 19970423060000ES ←  
N, 8235, AEP, 123456789, Cust, 987654321, N, , CE, AMPO, , , 5, HOURLY, NON-FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, 19970423060000ES, 19970423070000ES, 2.50, 2.50, 6.20, N, SC:(cust:SP);RV:(cust:SP);RF(cust:RQ); EI:(cust:R123); SP:(cust:R234); SU:(cust:R345), , , , N, CONFIRMED, , 19970422160523ES, , Profile verified, First piece, Customer comments, System Operator, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-8823, , 7019, 10, 19970423000000ES, 19970423060000ES ←  
Y,,,,,,,,,,,,,10,,,,,,,,, 19970423070000ES, 19970423080000ES,,,,,,,,,,,,, ←  
Y,,,,,,,,,,,,,15,,,,,,,,, 19970423080000ES, 19970423200000ES,,,,,,,,,,,,, ←  
Y,,,,,,,,,,,,,10,,,,,,,,, 19970423200000ES, 19970423210000ES,,,,,,,,,,,,, ←  
Y,,,,,,,,,,,,,5,,,,,,,,, 19970423210000ES, 19970423220000ES,,,,,,,,,,,,, ←  
N, 8236, Rseler, 456123789, Cust, 987654321, N, , CE, VP, , , 20, HOURLY, FIRM, POINT\_TO\_POINT, OFF\_PEAK, N/A, 19970424040000ES, 19970424160000ES, 2.00, 2.50, 6.20, N , , , CONFIRMED, , 19970422160523ES, , Bid price refused, Negotiated OFFER\_PRICE accepted, Joe Smith, (888)-123-4567, (888)-123-1231, jsmith@xyz.com, Jane Doe, (999)-123-4567, (999)-123-8823, , 7019, 20, 19970423040000ES, 19970423080000ES←  
Y,,,,,,,,,,,,,7880, 10, , , , , 19970423080000ES, 19970423160000ES←  
Y,,,,,,,,,,,,,7019, 10, , , , , 19970423080000ES, 19970423160000ES←

#### 4.4.6 Examples of Negotiation of Price and Partial Service Offer

##### 4.4.6.1 Negotiation with Preconfirmation

- a. The Customer submits a PRECONFIRMED transmission service request using the *transrequest* Template. Initially, the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting STATUS via the *transsell* Template to one of the following: INVALID, RECEIVED, STUDY, COUNTEROFFER, ACCEPTED, DECLINED, or REFUSED.
- c. The Seller has the option of entering a CAPACITY\_GRANTED and setting the STATUS to COUNTEROFFER via the *transsell* Template if the seller can only provide partial service.

- d. If the Seller sets STATUS to ACCEPTED (and, as required by Section 4.2.10.1i, the OASIS Node forces the Seller to set OFFER\_PRICE equal to BID\_PRICE as a condition to setting STATUS to ACCEPTED) and CAPACITY\_GRANTED is equal to CAPACITY\_REQUESTED, the OASIS Node will immediately set STATUS to CONFIRMED. (Section 4.2.10.1k requires the OASIS Node to set a null CAPACITY\_GRANTED equal to CAPACITY\_REQUESTED when STATUS is set to ACCEPTED.)
- e. The Customer may WITHDRAW request via *transcust* Template at any time up to point where the Seller sets STATUS to ACCEPTED.
- f. Once the STATUS is CONFIRMED, the OFFER\_PRICE and CAPACITY\_GRANTED officially becomes the terms of the reservation.

#### 4.4.6.2 Negotiations without Preconfirmation

- a. The Customer submits a transmission reservation request with the BID\_PRICE less than the CEILING\_PRICE via the *transrequest* Template. Initially the STATUS is set to QUEUED by the OASIS Node.
- b. The Seller has the option of setting the STATUS via the *transsell* Template to one of the following: INVALID, RECEIVED, STUDY, ACCEPTED, DECLINED, COUNTEROFFER, or REFUSED. If INVALID (due to invalid entries in the request), DECLINED (due to the Seller determining that the proposed price is not acceptable and further negotiations are not desired), or REFUSED (due to the unavailability of the requested service) are set, the transmission reservation request is terminated.
- c. The Seller has the option of entering a CAPACITY\_GRANTED and setting the STATUS to COUNTEROFFER via the *transsell* Template if the seller can only provide partial service.
- d. If the Seller set the STATUS to RECEIVED or STUDY, and determines that the BID\_PRICE is too low, the Seller sets the OFFER\_PRICE to the price desired, and sets the STATUS to COUNTEROFFER via the *transsell* Template.
- e. The Customer agrees to the OFFER\_PRICE, sets the BID\_PRICE equal to the OFFER\_PRICE, and sets the STATUS to CONFIRMED via the *transcust* Template.
- f. The OFFER\_PRICE and CAPACITY\_GRANTED with the STATUS of CONFIRMED locks in the terms of the reservation.

#### 4.4.6.3 Multiple Step Negotiations

- a. The Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the *transrequest* Template. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.
- b. The Seller has the option of setting the `STATUS` via the *transsell* Template to one of the following: `INVALID`, `RECEIVED`, `STUDY`, `ACCEPTED`, `DECLINED`, `COUNTEROFFER`, or `REFUSED`. If `INVALID`, `DECLINED`, or `REFUSED` are set, the transmission reservation request is terminated.
- c. The seller has the option of entering a `CAPACITY_GRANTED` and setting the `STATUS` to `COUNTEROFFER` via the *transsell* Template if the seller can only provide partial service. If ATC changes before the request reaches the `STATUS` of `CONFIRMED`, seller may change the `CAPACITY_GRANTED`.
- d. The Seller determines that the `BID_PRICE` is too low, sets the `OFFER_PRICE` to the desired value, and sets the `STATUS` to `COUNTEROFFER` via the *transsell* Template.
- e. The Customer responds to the new `OFFER_PRICE` with an updated `BID_PRICE` and sets the `STATUS` to `REBID` for re-evaluation by the Seller.
- f. The Seller determines that the `BID_PRICE` now is acceptable, and sets the `STATUS` to `ACCEPTED` via the *transsell* Template. The transition to `ACCEPTED` state requires the `OFFER_PRICE` to be set to the `BID_PRICE`: accepting a reservation with an `OFFER_PRICE` different from `BID_PRICE` would require the `STATUS` be set to `COUNTEROFFER` rather than `ACCEPTED` (see item c).
- g. The Customer agrees to the `OFFER_PRICE` and sets the `STATUS` to `CONFIRM` via the *transcust* Template.
- h. The `OFFER_PRICE` and `CAPACITY_GRANTED` with the `STATUS` as `CONFIRMED` locks in the terms of the reservation.

#### **4.4.6.4 Negotiations Declined by Seller**

- a. The Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the *transrequest* Template. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.
- b. The Seller has the option of setting the `STATUS` via the *transsell* Template to one of the following: `INVALID`, `RECEIVED`, `STUDY`, `ACCEPTED`, `DECLINED`, `COUNTEROFFER`, or `REFUSED`. If `INVALID`, `DECLINED`, or `REFUSED` are set, the transmission reservation request is terminated.

- c. The Seller determines that the `BID_PRICE` is too low, sets `OFFER_PRICE` to his desired value, and sets `STATUS` to `COUNTEROFFER` via the *transsell* Template.
- d. The Customer responds to `OFFER_PRICE` with updated `BID_PRICE` and sets the `STATUS` to `REBID` via the *transcust* Template for re-evaluation by Seller.
- e. The Seller breaks off all further negotiations by setting the `STATUS` to `DECLINED`, indicating that the price is unacceptable and that he does not wish to continue negotiations.

#### 4.4.6.5 Negotiations Withdrawn by Customer

- a. The Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the *transrequest*. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.
- b. The Seller has the option of setting the `STATUS` via the *transsell* Template to one of the following: `INVALID`, `RECEIVED`, `STUDY`, `ACCEPTED`, `DECLINED`, `COUNTEROFFER`, or `REFUSED`. If `INVALID`, `DECLINED`, or `REFUSED` are set, the transmission reservation request is terminated.
- c. The Seller has the option of entering a `CAPACITY_GRANTED` and setting the `STATUS` to `COUNTEROFFER` via the *transell* Template if the seller can only provide partial service.
- d. The Seller determines that the `BID_PRICE` is too low, sets the `OFFER_PRICE` to his desired value, and sets the `STATUS` to `COUNTEROFFER` via the *transsell* Template.
- e. The Customer responds to the `OFFER_PRICE` with an updated `BID_PRICE` and sets the `STATUS` to `REBID` for re-evaluation by Seller.
- f. The Seller determines that the `BID_PRICE` is still too low, sets the `OFFER_PRICE` to another value, and sets `STATUS` to `COUNTEROFFER` via the *transsell* Template.
- g. The Customer breaks off all further negotiations, either because the `OFFER_PRICE` or `CAPACITY_GRANTED` are unacceptable, by setting `STATUS` to `WITHDRAWN` (or the Customer/Seller could go through additional iterations of `REBID/COUNTEROFFER` until negotiations are broken off or the reservation is `CONFIRMED`).

#### 4.4.6.6 Negotiations Superseded by Higher Priority Reservation

- a. The Customer submits a transmission reservation request with the `BID_PRICE` less than the `CEILING_PRICE` via the *transrequest* Template. Initially the `STATUS` is set to `QUEUED` by the OASIS Node.

- b. The Seller has the option of setting the STATUS via the *transsell* Template to one of the following: INVALID, RECEIVED, STUDY, ACCEPTED, DECLINED, COUNTEROFFER, or REFUSED. If INVALID, DECLINED, or REFUSED are set, the transmission reservation request is terminated.
- c. If the Seller determines that another reservation has higher priority and must displace this request, he sets the STATUS to SUPERSEDED and the negotiations are terminated.
- d. However, if desired and permitted by the tariff, the Seller may set the STATUS of a request in any of these previous states (including COUNTEROFFER and ACCEPTED) to COUNTEROFFER with an OFFER\_PRICE which could avoid the request being superseded, thus allowing the Customer the choice of being SUPERSEDED or accepting the proposed OFFER\_PRICE.

#### 4.4.7 Audit Template examples

The following examples are included to show the general type of audit report responses that could be expected to be returned by implementations of the audit reporting Templates as documented above.

##### 4.4.7.1 Offerings

The following is an example of a hypothetical audit query for daily non-firm offerings to the "DDD" point of delivery for Monday August 17, 1998 (line breaks and indentations added to improve readability):

```

REQUEST_STATUS=200 ←
ERROR_MESSAGE ←
TIME_STAMP=19980821091601ES ←
VERSION=1.4 ←
TEMPLATE=transofferingaudit ←
OUTPUT_FORMAT=DATA ←
PRIMARY_PROVIDER_CODE=WXYZ ←
PRIMARY_PROVIDER_DUNS=78912345 ←
RETURN_TZ=ES ←
DATA_ROWS=14 ←
COLUMN_HEADERS=RECORD_TYPE,TIME_OF_LAST_UPDATE,MODIFYING_COMPANY_CODE,MODIFYIN
G_NAME,
TIME_OF_LAST_UPDATE,SELLER_CODE,SELLER_DUNS,PATH_NAME,POINT_OF_RECEIPT,POINT_OF_DEL
IVERY,
INTERFACE_TYPE,OFFER_START_TIME,OFFER_STOP_TIME,START_TIME,STOP_TIME,CAPACITY,SERVIC
E_INCREMENT,
TS_CLASS,TS_TYPE,TS_PERIOD,TS_WINDOW,TS_SUBCLASS,ANC_SVC_REQ,SALE_REF,POSTING_REF,CEI
LING_PRICE,
OFFER_PRICE,PRICE_UNITS,SERVICE_DESCRIPTION,NERC_CURTAILMENT_PRIORITY,OTHER_CURTAIL
MENT_PRIORITY,SELLER_NAME,SELLER_PHONE,SELLER_FAX,SELLER_EMAIL,SELLER_COMMENTS ←
U,19980815131756ES,WXYZ,Jane Doe,19980815131756ES, WXYZ,78912345,X/WXYZ/AAA-DDD//,AAA,DDD,E,19
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,800, DAILY,NON-FIRM,POINT_TO_P

```

OINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48732,102.00,85.00,\$/MW-Day,,3,, Jane Doe,123-456-7813,123-456-7801,  
doej@wxyz.com ←  
U,19980815124022ES,WXYZ, Jane Doe,19980815124022ES, WXYZ,78912345,X/WXYZ/AAA-DDD//,AAA,DDD,E,1  
998081400000ES,19980817000000ES,19980817000000ES,19980818000000ES,850, DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,, 48732,102.00,85.00,\$/MW-Day,,3,, Jane Doe,123-456-7813,123-456-780  
1,doej@wxyz.com, ←  
U,19980814120018ES,WXYZ, Joe Smith,19980814120018ES,WXYZ,78912345,X/WXYZ/AAA-DDD//,AAA,DDD,E,1  
998081400000ES,19980817000000ES,19980817000000ES,19980818000000ES,850, DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48732,102.00,90.00,\$/MW-Day,,3,,Joe Smith,123-456-7893,123-456-7801  
,smithj@wxyz.com ←  
I,19980813171204ES,WXYZ, Supervisor,19980813171204ES, WXYZ,78912345,X/WXYZ/AAA-DDD//,AAA,DDD,E,  
19980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,850, DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48732,102.00,95.00,\$/MW-Day,,3,, Supervisor,123-456-7890,123-456-78  
01 ←  
U,19980815124022ES,WXYZ, Jane Doe,19980815124022ES, WXYZ,78912345,X/WXYZ/BBB-DDD//,BBB,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,1200, DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48783,102.00,85.00,\$/MW-Day,,3,,Jane Doe,123-456-7813,123-456-7801,  
doej@wxyz.com ←  
U,19980814120022ES,WXYZ,Joe Smith,19980814120022ES,WXYZ,78912345,X/WXYZ/BBB-DDD//,BBB,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,1200,DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48783,102.00,90.00,\$/MW-Day,,3,,Joe Smith,123-456-7893,123-456-7801  
,smithj@wxyz.com ←  
I,19980813171210ES,WXYZ,Supervisor,19980813171210ES,WXYZ,78912345,X/WXYZ/BBB-DDD//,BBB,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,1200,DAILY,NON-FIRM,POINT\_TO  
POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48783,102.00,95.00,\$/MW-Day,,3,,Supervisor,123-456-7890,123-456-780  
1, ←  
U,19980816101000ES,WXYZ,Supervisor,19980816101000ES,WXYZ,78912345,X/WXYZ/CCC-DDD//,CCC,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,85,DAILY,NON-FIRM,POINT\_TO\_PO  
INT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48820,102.00,102.00,\$/MW-Day,,3,,Supervisor,123-456-7810,123-456-7801,  
←  
U,19980814143807ES,WXYZ,Supervisor,19980814143807ES,WXYZ,78912345,X/WXYZ/CCC-DDD//,CCC,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,90,DAILY,NON-FIRM,POINT\_TO\_PO  
INT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48820,102.00,102.00,\$/MW-Day,,3,,Supervisor,123-456-7890,123-456-7801,  
←  
U,19980814120023ES,WXYZ,Joe Smith,19980814120023ES,WXYZ,78912345,X/WXYZ/CCC-DDD//,CCC,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,110,DAILY,NON-FIRM,POINT\_TO\_P  
OINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48820,102.00,90.00,\$/MW-Day,,3,,Joe Smith,123-456-7893,123-456-7801,s  
mithj@wxyz.com ←  
I,19980813171214ES,WXYZ,Supervisor,19980813171214ES,WXYZ,78912345,X/WXYZ/CCC-DDD//,CCC,DDD,E,19  
980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,110,DAILY,NON-FIRM,POINT\_TO\_P  
OINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48820,102.00,95.00,\$/MW-Day,,3,,Supervisor,123-456-7890,123-456-7801,  
←  
U,19980815124023ES,WXYZ,Jane Doe,19980815124023ES,WXYZ,78912345,X/WXYZ/WXYZ-DDD//,WXYZ,DDD,  
E,19980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,340,DAILY,NON-FIRM,POINT\_T  
O\_POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48855,102.00,85.00,\$/MW-Day,,3,,Jane Doe,123-456-7813,123-456-78  
01,doej@wxyz.com ←  
U,19980814120023ES,WXYZ,Joe Smith,19980814120023ES,WXYZ,78912345,X/WXYZ/WXYZ-DDD//,WXYZ,DDD,  
E,19980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,340,DAILY,NON-FIRM,POINT\_T  
O\_POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48855,102.00,90.00,\$/MW-Day,,3,,Joe Smith,123-456-7893,123-456-7  
801,smithj@wxyz.com ←  
I,19980813171222ES,WXYZ,Supervisor,19980813171222ES,WXYZ,78912345,X/WXYZ/WXYZ-DDD//,WXYZ,DDD,  
E,19980814000000ES,19980817000000ES,19980817000000ES,19980818000000ES,340, DAILY,NON-FIRM,POINT\_T  
O\_POINT,FULL\_PERIOD,FIXED,,SC:M;RF:M,,48855,102.00,95.00,\$/MW-Day,,3,,Supervisor,123-456-7890,123-456-7  
801, ←

From this audit report, the daily non-firm offerings on the four paths to "DDD" (AAA-DDD, BBB-DDD, CCC-DDD, and WXYZ-DDD) were all originally posted by WXYZ's "Supervisor" at approximately 17:12 on 8/13 at a price of \$95.00 /MW-Day discounted from a ceiling price of \$102.00.

At approximately 12:00 on 8/14, Joe Smith changed the offer price to \$90.00 on all four paths.

At 14:14 on 8/14, "Supervisor" adjusted the capacity available on path X/WXYZ/CCC-DDD// to 90 MW (POSTING\_REF = 48820) and set the offer price up to match the tariff ceiling rate (presumably due to the path now being constrained and released from the requirement to have discounted service offered at the same rate as all other unconstrained paths to DDD). Capacity on this path was last updated to a value of 85 MW at 10:10 on 8/16, which is the current information posted on OASIS for this path at the time of the query.

Jane Doe adjusted the price on the three presumably unconstrained paths to DDD at 12:40 on 8/15 to \$85.00, which may have been in response to a negotiation for service on one of these paths. No further updates have occurred to the offerings on paths BBB-DDD and WXYZ-DDD since that time.

Finally, the capacity available on path X/WXYZ/AAA-DDD// was updated by Jane Doe from 850 to 800 MW at 13:17 on 8/15, which may have corresponded with final confirmation of a reservation at a negotiated discount by the customer that initiated the price change from \$90.00 to \$85.00.

#### 4.4.7.2 Reservations

The following is an example of a hypothetical audit query for a specific transmission service reservation (line breaks and indentations added to improve readability):

```
REQUEST_STATUS=200,
ERROR_MESSAGE=,
TIME_STAMP=19980821092048ES,
VERSION=1.4,
TEMPLATE=transstatusaudit,
OUTPUT_FORMAT=DATA,
PRIMARY_PROVIDER_CODE=WXYZ,
PRIMARY_PROVIDER_DUNS=78912345,
RETURN_TZ=ES,
DATA_ROWS=9,
COLUMN_HEADERS=,
RECORD_TYPE,TIME_OF_UPDATE,MODIFYING_COMPANY_CODE,MODIFYING_NAME,
CONTINUATION_FLAG,ASSIGNMENT_REF,SELLER_CODE,SELLER_DUNS,CUSTOMER_CODE,
CUSTOMER_DUNS,AFFILIATE_FLAG,PATH_NAME,POINT_OF_RECEIPT,POINT_OF_DELIVERY,
SOURCE,SINK,CAPACITY,SERVICE_INCREMENT,TS_CLASS,TS_TYPE,TS_PERIOD,TS_WINDOW,
TS_SUBCLASS,NERC_CURTAILMENT_PRIORITY,OTHER_CURTAILMENT_PRIORITY,START_TIME,
STOP_TIME,CEILING_PRICE,OFFER_PRICE,BID_PRICE,PRICE_UNITS,PRECONFIRMED,ANC_SVC_LINK,ANC
_SVC_REQ,POSTING_REF,SALE_REF,REQUEST_REF,DEAL_REF,NEGOTIATED_PRICE_FLAG,
STATUS,STATUS_NOTIFICATION,STATUS_COMMENTS,TIME_QUEUED,RESPONSE_TIME_LIMIT,
TIME_OF_LAST_UPDATE,PRIMARY_PROVIDER_COMMENTS,SELLER_COMMENTS,
CUSTOMER_COMMENTS,SELLER_NAME,SELLER_PHONE,SELLER_FAX,SELLER_EMAIL,
CUSTOMER_NAME,CUSTOMER_PHONE,CUSTOMER_FAX,CUSTOMER_EMAIL,REASSIGNED_REF,
REASSIGNED_CAPACITY, REASSIGNED_START_TIME,REASSIGNED_STOP_TIME
```

```

U,19980815131629ES,DEFPM,Alan Trader,N,104392,WXYZ,78912345,DEFPM,912876543,N,X/WXYZ/AAA-DDD//,A
AA,DDD,AAA,ZZZ,50,DAILY,NON-FIRM,POINT_TO_POINT,FULL_PERIOD,FIXED,,3,,19980817000000ES,199808
18000000ES,102.00,85.00,85.00,$/MW-Day,N,,SC:M;RF:M,,,,,CONFIRMED,,,19980815121510ES,19980815144100ES,
19980815131629ES,,,,Jane Doe,123-456-7813,123-456-7801,doej@wxyz.com,Alan Trader,312-678-9104,312-678-9100,a
.trader@defmarketing.com,,,←
U,,,,Y,,,,,75,,,,,19980818000000ES,19980819000000ES,,,,,←
U,,,,Y,,,,,100,,,,,19980819000000ES,19980820000000ES,,,,,←
U,19980815125042ES,WXYZ,Jane Doe,N,104392,WXYZ,78912345,DEFPM,912876543,N,X/WXYZ/AAA-DDD//,AAA
,DDD,AAA,ZZZ,50,DAILY,NON-FIRM,POINT_TO_POINT,FULL_PERIOD,FIXED,,3,,19980817000000ES,19980818
000000ES,102.00,85.00,82.00,$/MW-Day,N,,SC:M;RF:M,,,,,COUNTEROFFER,,,19980815121510ES,19980815144100
ES,19980815125042ES,,,,Jane Doe,123-456-7813,123-456-7801,doej@wxyz.com,Alan Trader,312-678-9104,312-678-910
0,a.trader@defmarketing.com,,,←
U,19980815124811ES,DEFPM,Alan Trader,N,104392,WXYZ,78912345,DEFPM,912876543,N,X/WXYZ/AAA-DDD//,A
AA,DDD,AAA,ZZZ,50,DAILY,NON-FIRM,POINT_TO_POINT,FULL_PERIOD,FIXED,,3,,19980817000000ES,199808
18000000ES,102.00,85.00,82.00,$/MW-Day,N,,SC:M;RF:M,,,,,REBID,,,19980815121510ES,19980815144100ES,19980
815124811ES,,,,Jane Doe,123-456-7813,123-456-7801,doej@wxyz.com,Alan Trader,312-678-9104,312-678-9100,a.trader
@defmarketing.com←
U,19980815124100ES,WXYZ,Jane Doe,N,104392,WXYZ,78912345,DEFPM,912876543,N,X/WXYZ/AAA-DDD//,AAA
,DDD,AAA,ZZZ,50,DAILY,NON-FIRM,POINT_TO_POINT,FULL_PERIOD,FIXED,,3,,19980817000000ES,19980818
000000ES,102.00,85.00,80.00,$/MW-Day,N,,SC:M;RF:M,,,,,COUNTEROFFER,,,19980815121510ES,19980815144100
ES,19980815124100ES,,,,Jane Doe,123-456-7813,123-456-7801,doej@wxyz.com,Alan Trader,312-678-9104,312-678-910
0,a.trader@defmarketing.com←
I,19980815121510ES,DEFPM,Alan Trader,N,104392,WXYZ,78912345,DEFPM,912876543,N,X/WXYZ/AAA-DDD//,A
AA,DDD,AAA,ZZZ,50,DAILY,NON-FIRM,POINT_TO_POINT,FULL_PERIOD,FIXED,,3,,19980817000000ES,199808
18000000ES,102.00,90.00,80.00,$/MW-Day,N,,SC:M;RF:M,,,,,QUEUED,,,19980815121510ES,,19980815121510ES,,,C
ompany Default,123-456-7800,123-456-7801,,Alan Trader,312-678-9104,312-678-9100,a.trader@defmarketing.com←
I,,,,Y,,,,,75,,,,,19980818000000ES,19980819000000ES,,,,,←
I,,,,Y,,,,,100,,,,,19980819000000ES,19980820000000ES,,,,,←

```

First, this example shows the handling of continuation records which conveyed a time varying demand of 50 MW on 8/17, 75 MW on 8/18, and 100 MW on 8/19. This demand profile was initially entered with the original reservation request (*transrequest* Template) at 12:15 on 8/15 by Alan Trader. Since the Data Elements associated with the profile were never modified, the intervening audit response records do not repeat the data from these continuation records.

As part of the original reservation, Alan Trader attempted to negotiate a price for service of \$80.00 /MW-Day. Jane Doe responded to this request with a counter offer at the rate of \$85.00 /MW-Day at 12:41 on 8/15. Since the status of COUNTEROFFER constitutes acceptance of all terms of the reservation except price (i.e., transmission capability has been evaluated and is available), the RESPONSE\_TIME\_LIMIT Data Element has been updated to reflect the time by which the customer must confirm service (assuming the establishment of customer confirmation time limits is approved by FERC).

At 12:48, Alan Trader attempted to negotiate further for a rate of \$82.00 /MW-Day and the reservation status was set to REBID. Jane Doe responded at 12:50 with a second counter offer restating a rate of \$85.00, which Alan Trader finally agreed to at 13:16 on 8/15. The current posted information on OASIS shows this final CONFIRMED reservation.

## 4.5 INFORMATION SUPPORTED BY WEB PAGE

Information that must be posted on INFO.HTM, as per Section 3.4 b, includes:

There shall be a reference in INFO.HTM to a common source of interconnection wide curtailment and interruption information, such as the NERC Transmission Loading Relief (TLR) web site.

There shall be a reference in INFO.HTM to information related to the Transmission Provider's methodology for computing and application of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM). If the Transmission Provider does not use CBM or TRM in their assessment of Available Transmission Capability (ATC), that information shall also be in INFO.HTM.

There shall be a reference in INFO.HTM to the location of the list of system studies conducted.

There shall be a reference in INFO.HTM to the location of the company's organizational chart, job descriptions and personnel names as referenced in Section 3.4 k.

There shall be a reference on INFO.HTM to information on requesting the text file of the tariffs and service agreements.

## 5. PERFORMANCE REQUIREMENTS

A critical aspect of any system is its performance. Performance encompasses many issues, such as security, sizing, response to user requests, availability, backup, and other parameters that are critical for the system to function as desired. The following sections cover the performance requirements for the OASIS Nodes .

### 5.1 SECURITY

Breaches of security include many inadvertent or possibly even planned actions. Therefore, several requirements shall be implemented by the TSIPs to avoid these problems:

- a. **Provider Update of TS Information:** Only Providers, including Secondary Providers, shall be permitted to update their own TS Information.
- b. **Customer Input Only ASCII Text:** TSIPs shall be permitted to require that inputs from Customers shall be filtered to permit only strict ASCII text (strip bit 8 from each byte).
- c. **Provider Updating Over Public Facilities:** If public facilities are involved in the connection between a Provider and the OASIS Node, the Provider shall be able to update his TS Information only through the use of ASCII or through encrypted files.

- d. **User Registration and Login:** All Users shall be required to register and login to a Provider's Account before accessing that Provider's TS Information.
- e. **User Passwords:** All Users shall enter their personal password when they wish access to TS Information beyond the lowest Access Privilege.
- f. **Service Request Transactions:** Whenever Service Request transactions are implemented entirely over OASIS Nodes, both an individual Customer password for the request, and an individual Provider password for the notification of acceptance shall be required.
- g. **Data Encryption:** Sophisticated data encryption techniques and the "secure id" mechanisms being used on the public Internet shall be used to transfer sensitive data across the Internet and directly between OASIS Nodes.
- h. **Viruses:** Since only data is being transmitted between the OASIS Nodes and the Users, viruses are unlikely to be passed between them. Therefore, TSIPs shall be responsible for ensuring that the OASIS Nodes are free from viruses, but need not screen data exchanges with Users for viruses.
- i. **Performance Log:** TSIPs shall keep a log on User usage of OASIS resources.
- j. **Disconnection:** TSIPs shall be allowed to disconnect any User who is degrading the performance of the OASIS Node through the excessive use of resources, beyond what is permitted in their Service Level Agreement.
- k. **Premature Access:** The TSIP log shall also be used to ensure that Users who are affiliated with the Provider's company (or any other User) do not have access to TS information before it is publicly available.
- l. **Firewalls:** TSIPs shall employ security measures such as firewalls to minimize the possibility that unauthorized users shall access or modify TS Information or reach into Provider or User systems. Interfaces through Public Data Networks or the Internet shall be permitted as long as these security requirements are met.
- m. **Certificates and Public Key Standards (optional):** Use of alternative forms of login and authentication using certificates and public key standards is acceptable.

## 5.2 ACCESS PRIVILEGES

Users shall be assigned different Access Privileges based on external agreements between the User and the Provider. These Access Privileges are associated with individual Users rather than just a company, to ensure that only authorized Users within a company have the appropriate access.

The following Access Privileges shall be available as a minimum:

- a. **Access Privilege Read-Only:** The User may only read publicly available TS Information.
- b. **Access Privilege for Transactions:** The Customer is authorized to transact Service Requests.
- c. **Access Privilege Read/Write:** A Secondary Provider shall have write access to his own Provider Account on an OASIS Node.

### 5.3 OASIS RESPONSE TIME REQUIREMENTS

TSIPs can only be responsible for the response capabilities of two portions of the Internet-based OASIS network:

- The adequacy of the TSIP's internet interconnection(s) for reasonable high-volume utilization
- The response capabilities of the OASIS Node functions to process interactions with Users

#### 5.3.2 Measurement Criteria for Internet Connections

An OASIS node's Internet connection(s) should not exceed 60% sustained utilization. To determine the sustained utilization, TSIPs shall retain usage records and logs related to the Internet service.

#### 5.3.3 Measurement Criteria for OASIS Node functions

It is required that OASIS query functions meet or exceed the response times listed below during the normal conduct of business.

Template or GUI equivalent	Average Response not fewer than:	90% of Responses not fewer than:
<i>transstatus</i>	100 rows/minute	10 rows/minute
<i>transoffering</i>	500 rows/minute	100 rows/minute

It should be recognized that during periods of minimal interactivity there might be heavier loading due to automated processes gathering larger volumes of data or due to OASIS node housekeeping services. The offloading of such discretionary demand should not be discouraged if it serves to make the OASIS more responsive during primary periods of customer activity.

To assess whether these performance capabilities are obtainable, an OASIS application shall collect and log pertinent statistics on an hourly basis about each invocation of the primary types of data queries on the Templates *transstatus* and *transoffering*. Statistics logged shall be the number of invocations per type of template, the service processing time to retrieve the information, format of the responses, and effective template data row count.

## 5.4 OASIS PROVIDER ACCOUNT AVAILABILITY

The following are the OASIS Provider Account availability requirements:

- a. **OASIS Provider Account Availability:** The availability of each OASIS Provider account on an OASIS Node shall be at least **98.0%** (downtime of about 7 days per year).

Availability is defined as:

$$\% \text{ Availability} = \frac{(1 - \text{Cumulative Provider Account Downtime})}{\text{Total Time}} * 100$$

A Provider account shall be considered to be down, and downtime shall be accumulated, upon occurrence of any of the following:

1. One or more Users cannot link and log on to the Provider account. The downtime accumulated shall be calculated as:

$\sum$  for affected Users of  $1/n * (\text{Login Time})$ , which is the time used by each affected User to try to link and log on to the Provider account, and where "n" is the total number of Users actively registered for that Provider account.

2. One or more Users cannot access TS Information once they have logged on to a Provider account. The downtime accumulated shall be calculated as:

$\sum$  for affected Users of  $1/n * (\text{Access Time})$ , which is the time used by each affected User to try to access data, and where "n" is the total number of Users actively registered for that Provider.

3. A **five (5) minute** penalty shall be added to the cumulative downtime for every time a User loses their connection to a Provider's account due to an OASIS Node momentary failure or problem.

## 5.5 BACKUP AND RECOVERY

The following backup and recovery requirements shall be met:

- a. **Normal Backup of TS Information:** Backup of TS Information and equipment shall be provided within the OASIS Nodes so that no data or transaction logs are lost or become inaccessible by Users due to any single point of failure. Backed up data shall be no older than **30 seconds**. Single points of failure include the loss of one:

- \_ Disk drive or other storage device
- \_ Processor
- \_ Inter-processor communications (e.g. LAN)
- \_ Inter-OASIS communications
- \_ Software application
- \_ Database

- \_ Communication ports for access by Users
  - \_ Any other single item which affects the access of TS Information by Users
- b. **Spurious Failure Recovery Time:** After a spurious failure situation, all affected Users shall regain access to all TS Information **within 30 minutes**. A spurious failure is a temporary loss of services which can be overcome by rebooting a system or restarting a program. Permanent loss of any physical component is considered a catastrophic failure.
- c. **Long-Term Backup:** Permanent loss of critical data due to a catastrophic failure shall be minimized through off-line storage on a **daily basis** and through off-site data storage on a **periodic basis**.
- d. **Catastrophic Failure Recovery:** Recovery from a catastrophic failure or loss of an OASIS Node may be provided through the use of alternate OASIS Nodes which meet the same availability and response time requirements. TSIPs may set up prior agreements with other TSIPs as to which Nodes will act as backups to which other Nodes, and what procedure will be used to undertake the recovery. Recovery from a catastrophic failure shall be designed to be achieved **within 24 hours**.

## 5.6 TIME SYNCHRONIZATION

The following are the time requirements:

- a. **Time Synchronization:** Time shall be synchronized on OASIS Nodes such that all time stamps will be accurate to within "0.5 second of official time. This synchronization may be handled over the network using NTP, or may be synchronized locally using time standard signals (e.g. WWVB, GPS equipment).
- b. **Network Time Protocol (NTP):** OASIS Nodes shall support the Internet tool for time synchronization, Network Time Protocol (NTP), which is described in RFC-1305, version 3, so that Users shall be able to request the display and the downloading of current time on an OASIS Node for purposes of user applications which might be sensitive to OASIS time.

## 5.7 TS INFORMATION TIMING REQUIREMENTS

The TS Information timing requirements are as follows, except they are waived during emergencies.

- a. **TS Information Availability:** The most recent Provider TS information shall be available on the OASIS Node within 5 minutes of its required posting time at least 98% of the time. The remaining 2% of the time the TS Information shall be available within 10 minutes of its scheduled posting time.
- b. **Notification of Posted or Changed TS Information:** Notification of TS Information posted or changed by a Provider shall be made available within 60 seconds to the log.

- c. **Acknowledgment by the TSIP:** Acknowledgment by the TSIP of the receipt of User Purchase requests shall occur within 1 minute. The actual negotiations and agreements on Purchase requests do not have time constraints.

## **5.8 TS INFORMATION ACCURACY**

The following requirements relate to the accuracy of the TS information:

- a. **TS Information Reasonability:** TS information posted and updated by the Provider shall be validated for reasonability and consistency through the use of limit checks and other validation methods.
- b. **TS Information Accuracy:** Although precise measures of accuracy are difficult to establish, Providers shall use their best efforts to provide accurate information.

## **5.9 PERFORMANCE AUDITING**

The following are the performance auditing requirements:

- a. **User Help Desk Support:** TSIPs shall provide a "Help Desk" that is available at least during normal business hours (local time zone) and normal work days.
- b. **Monitoring Performance Parameters:** TSIPs shall use their best efforts to monitor performance parameters. Any User shall be able to read or download these performance statistics.

## **5.10 MIGRATION REQUIREMENTS**

Whenever a new version of the S&CP is to be implemented, a migration plan will be developed for cutting over to the new version.

**Appendix A**  
**Data Element Dictionary**

**June 26, 2000**

**Version 1.4**

<b>Data Dictionary Element Name</b>	<b>Alias</b>	<b>Field Format : minimum characters {type of ASCII} maximum characters</b>	<b>Restricted Values</b>	<b>Definition of Data Element</b>
AFFILIATE_FLAG	AFFLAG	{ALPHANUMERIC}3	Valid Values YES NO	Set to YES if customer is an affiliate of the provider
ANC_SERVICE_POINT	ANCPOINT	0{ALPHANUMERIC} 12	Free form text, null can be used if there is no ancillary service point other than the control area	Name of ancillary service point within a control area, such as a POR/POD/SOURCE/SINK from which the ancillary service is provided
AS_TYPE	ASTYPE	1{ALPHANUMERIC} 20	Valid types <ul style="list-style-type: none"> <li>• EI</li> <li>• SP</li> <li>• SU</li> <li>• RV</li> <li>• RF</li> <li>• SC</li> <li>• DT</li> <li>• TL</li> <li>• BS</li> <li>• {Registered}</li> </ul>	EI - Energy Imbalance SP - Spinning Reserve SU - Supplemental Reserve RV - Reactive supply and Voltage Control RF- Regulation and Frequency response SC- Scheduling, system Control and Dispatch DT - Dynamic Transfer TL - Real power Transmission Loss BS - System Black Start capability {Registered} must be registered with www.tsin.com and listed in the ANCSERV Template

ANC_SVC_LINK	ANCSVCLINK	0{ALPHANUMERIC}300	<p>Formatted string as follows:</p> <pre> SC:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; RV:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; RF:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; EI:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; SP:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; SU:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; {Registered}:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; </pre>	<p>The method for linking ancillary services to a transmission service request. The provider and capacity of each ancillary service is identified using the formatted string:</p> <pre> SC:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; RV:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; RF:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; EI:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; SP:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; SU:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; {Registered}:(AA[:xxx[:yyy[:nnn] ] ] ] ) ; </pre> <p>where AA is the appropriate PRIMARY_PROVIDER_CODE, SELLER_CODE, or CUSTOMER_CODE, and represents the company providing the ancillary services. "AA" may be unspecified for "xxx" type identical to "FT", in which case the ":" character must be present and precede the "FT" type.</p> <p>If multiple "AA" terms are necessary, then each "AA" grouping will be enclosed within parenthesis, with the overall group subordinate to the AS_TYPE specified within parenthesis and where xxx represents either:</p> <ul style="list-style-type: none"> <li>- "FT" to indicate that the Customer will determine ancillary services at a future time, or</li> </ul>
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<p>ANC_SVC_LINK (cont.)</p>				<ul style="list-style-type: none"> <li>- "SP" to indicate that the Customer will self-provide the ancillary services, or</li> <li>- "RQ" to indicate that the Customer is asking the OASIS Node to initiate the process for making an ancillary services reservation with the indicated Provider or Seller on behalf of the Customer. The Customer must then continue the reservation process with the Provider or Seller. If the transmission services request is for preconfirmed service, then the ancillary services shall also be preconfirmed, or</li> <li>- "AR" to indicate an assignment reference number sequence follows. The terms "yyy" and "nnn" are subordinate to the xxx type of "AR". yyy represents the ancillary services reservation number (ASSIGNMENT_REF) and nnn represents the capacity of the reserved ancillary services. Square brackets are used to indicated optional elements and are not used in the actual linkage itself. Specifically, the :yyy is applicable to only the "AR" term and the :nnn may optionally be left off if the capacity of ancillary services is the same as for the transmission services, and optionally multiple ancillary reservations may be indicated by additional (xxx[:yyy[:nnn]]) enclosed within</li> </ul>
---------------------------------	--	--	--	--

ANC_SVC_REQ	ANCSVCRE Q	0{ALPHANUMERIC} 100	EI: {M,R,O,U}; SP: {M,R,O,U}; SU: {M,R,O,U}; RV: {M,R,O,U}; RF: {M,R,O,U}; SC: {M,R,O,U}; {registered}: {M,R,O,U }	Ancillary services required for a transmission services offering. The appropriate letter {M,R,O,U} will be assigned to each of the six Proforma FERC ancillary services (see AS_TYPE), where the letters mean the following: <ul style="list-style-type: none"> <li>• (M) Mandatory, which implies that the Primary Provider must provide the ancillary service</li> <li>• (R) Required, which implies that the ancillary service is required, but not necessarily from the Primary Provider</li> <li>• (O) Optional, which implies that the ancillary service is not necessarily required, but could be provided</li> <li>• (U) Unknown, which implies that the requirements for the ancillary service are not known at this time</li> </ul>
ASSIGNMENT_REF	AREF	1{ALPHANUMERIC} 12	Unique value	A unique reference number assigned by a Transmission Information Provider to provide a unique record for each transmission or ancillary service request. A single transmission or ancillary service request will be over a contiguous time period, i.e. from a START TIME to an STOP TIME.
ATTRIBUTE_UNITS	ATTRUNIT S	1{ALPHANUMERIC} 20	Free form text	System data attribute units
ATTRIBUTE_VALUE	ATTRVAL UE	1{NUMERIC}12	Real number	System data attribute value
BID_PRICE	BIDPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	The current bid price of a Service in dollars and cents. Used by Customers to designate a price being bid.

CAPACITY	CAP	0{NUMERIC}12	Number in units of MW	Transfer capability is the measure of the ability of the interconnected electric system to readily move or transfer power from one area to another over all transmission lines (or paths) between those areas under specified system conditions. In this context "area" may be an individual electric system, powerpool, control area, subregion, or NERC region or portion thereof.
CAPACITY_AVAILABLE	CAPAVAIL	0{NUMERIC}12	Non-negative number in units of MW	Amount of transmission capacity available after all the reductions are applied to CAPACITY_GRANTED over the time interval
CAPACITY_CURTAILED	CAPCUR	1{NUMERIC}12	Non-negative number in units of MW	The amount of transfer capability curtailed by the Primary provider for emergency reasons.
CAPACITY_GRANTED	CAPGRNT	0{NUMERIC}12	Non-negative number in units of MW	The amount of capacity granted by the seller equal to or less than CAPACITY_REQUESTED by the TC.
CAPACITY_REDUCE	CAPREDU	0{NUMERIC}12	Negative number in units of MW	Amount of transmission capacity reduced
CAPACITY_REQUESTED	CAPREQ	0{NUMERIC}12	Non-negative number in units of MW	Transmission capacity requested by the Transmission Customer (TC)
CAPACITY_SCHEDULED	CAPSCH	0{NUMERIC}12	Non-negative number in units of MW	Transfer capability scheduled on each path
CAPACITY_USED	CAPUSED	0{NUMERIC}12	Non-negative number in units of MW	CAPACITY_USED reflects the peak MW amount of the reservation used to support the scheduled transaction

CATEGORY	CAT	0{ALPHANUMERIC} 25	Valid name from CATEGORY in LIST Template	A name to be used to categorize messages. Valid names would include: , <i>Want-Ad</i> , <i>Curtailement</i> , <i>Outage</i> , <i>OASIS Maintenance Outage</i>
CEILING_PRICE	CEILPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	Ceiling price of the Service as entered by the Transmission Provider.
COLUMN_HEADERS	HEADERS	1{ALPHANUMERIC} Limited to all the elements names in one Template	Headers surrounded with A and separated by commas. Limited to valid Template element names. Must use full element name and not alias.	Example: COLUMN_HEADER="APATH_NAME","POI NT_OF_RECEIPT","POINT_OF_DELIVERY ","SOURCE","SINK"
COMPETING_REQU EST_FLAG	COMPREQ	1{ALPHANUMERIC} 1	"Y" or "N"	If "Y", indicates there is one or more competing requests for this reservation. The competing request AREFs are listed in the SELLER COMMENTS
CONTINUATION_FL AG	CONT	1{ALPHANUMERIC} 1	"Y" or "N"	Indicates whether or not this record is a continuation from the previous record
CONTROL_AREA	AREA	1{ALPHANUMERIC} 20	Valid name of a control area	A part of the power system with metered tie lines and capable of matching generation and load while meeting scheduled interchange. Location of Ancillary Services is my CONTROL AREA.
CURTAILMENT_OPT IONS	CUROPT	0{ALPHANUMERIC} 80	Free form text	Customer options, if any, to avoid curtailment
CUSTOMER_CODE	CUST	1{ALPHANUMERIC} 6	Unique value, registered on TSIN.COM	Any entity (or its designated agent) that is eligible to view OASIS information, to execute a service agreement, and/or to receive transmission service.

CUSTOMER_COMMENTS	CUSTCOM	0{ALPHANUMERIC} 255	Free-form text	Informative text. For information to be communicated between the customer and seller.
CUSTOMER_DUNS	CUSTDUNS	9{NUMERIC}9	Unique DUNS number	Unique DUNS number for a Customer
CUSTOMER_EMAIL	CUSTEMAIL	1{ALPHANUMERIC} 25	Valid Internet E-Mail address	Internet E-Mail address of Customer contact person
CUSTOMER_FAX	CUSTFAX	14{ALPHANUMERIC} 20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	FAX phone number of Customer contact person
CUSTOMER_NAME	CUSTNAME	1{ALPHANUMERIC} 25	Free form text	Name of Customer contact person
CUSTOMER_PHONE	CUSTPHON	14{ALPHANUMERIC} 20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	Telephone of Customer contact person
DATA_ROWS	ROWS	1{NUMERIC} unlimited	Positive Number	Number of records (rows) of data exclusive of header information that are to be uploaded or downloaded in a file.
DATE_TIME_EFFECTIVE	TIMEEFACT	16{ALPHANUMERIC} 16	Valid date and time in seconds yyyy+mo+dd+hh +mm+ss+tz	Date and time a message or service offer is in effect

DEAL_REF	DREF	0{ALPHANUMERIC} 12	Unique value, Assigned by Customer	The unique reference assigned by a Customer to two or more service purchases to identify each of them as related to others in the same power service deal. These requests may be related to each other in time sequence through a single Provider, or as a series of wheels through multiple Providers, or a combination of both time and wheels. The User uses the DEAL_REF to uniquely identify a combination of requests relating to a particular deal.
DISCRETION_DESCRIPTION	DISCDESC	0{ALPHANUMERIC} 1000	Free form text	A detailed description of the discretion being reported
ELEMENT_NAME	ELEMENT	1{ALPHANUMERIC} 40	Valid Template element name	Template element name as indicated in data dictionary
EMPLOYEE_NAME	EMPNAME	1{ALPHANUMERIC} 25	Free form text	Name of person who is transferring from one position to another
ERROR_MESSAGE	ERROR	1{ALPHANUMERIC} 250	Free form text	Error message related to a RECORD_STATUS or REQUEST_STATUS
EVENT_ID	EVENTID	0{ALPHANUMERIC} 25	Free form text	The EVENT_ID Data Element is any regional or interconnection-wide recognized security event identifier for events that are of greater scope than those administered locally by the Provider (e.g., a NERC Security Coordinator assigned identifier corresponding to a particular implementation of the NERC TLR procedure).

FACILITY_CLASS	FACCLASS	0{ALPHANUMERIC} 25	Free form text, for example: TRANSFORMER, LINE, FLOWGATE Or as defined in the LIST Template	Type of limiting device such as 'transformer', 'line' or 'flowgate'
FACILITY_LIMIT_TYPE	FACLIMTY P	0{ALPHANUMERIC} 25	thermal, stability, voltage or defined in LIST Template	For example: thermal, stability, voltage
FACILITY_LOCATION	FACLOC	0{ALPHANUMERIC} 8	Free form text, for example: INTERNAL EXTERNAL Or as defined in the LIST Template	Location of facility that caused the interruption, either internal to the TP or external to the TP grid
FACILITY_NAME	FACNAME	0{ALPHANUMERIC} 25	Free form text	Name of facility, such as name of path or name of flowgate
FORMER_COMPANY	FORMCO	1{ALPHANUMERIC} 25	Free form text	Former company of the person who is transferring
FORMER_DEPARTMENT	FORMDEPT	1{ALPHANUMERIC} 52	Free form text	Former department of the person who is transferring
FORMER_POSITION	FORMPOS	1{ALPHANUMERIC} 25	Free form text	Former position held by the person who is transferring
GCA_CODE	GCA	1{ALPHANUMERIC} 4	Registered control area company code	Generator Control Area Code. Information from Tag

IMPACTED	IMPACTED	0{NUMERIC}4	Number	Indicates whether the reservation has been impacted by another reservation. For an original reservation this counter is 0. This counter is incremented by 1 by TSIP on the parent request when its ASSIGNMENT_REF is entered in any other reservation's REASSIGNED_REF or RELATED_REF or in entered in any reduction.
IMPACTING_REF	IMPACTREF	0{ALPHANUMERIC}12	Unique reference	IMPACTING_REF references the ASSIGNMENT_REF of the associated transmission reservation (if applicable) that caused the reduction in capacity
INITIATING_PARTY	INITPARTY	0{ALPHANUMERIC}4	Free form text	Person's name or Company code for company responsible for initiating the change in capacity
INTERFACE_TYPE	INTERFAC E	0{ALPHANUMERIC}1	I,E	Type of interface define by path: Internal (I) to a control area or External (E) to a control area
LCA_CODE	LCACODE	0{ALPHANUMERIC}4	Valid registered control area code	Load Control Area registered code. Information comes from tag

LIST_ITEM	ITEM	1{ALPHANUMERIC} 50	Free form text	Item from LIST, such as list of SELLER, list of PATH_NAME, list of POINT_OF_RECEIPT, list of POINT_OF_DELIVERY, list of SERVICE_INCREMENT, list of TS_CLASS, list of TS_TYPE, list of TS_PERIOD, list of TS_WINDOW, list of TS_SUBCLASS, list of AS_TYPE, list of REQUEST_TYPE, list of ANC_SERVICE_POINT, list of FACILITY_CLASS, list of FACILITY_LIMIT_TYPE, list of PROCEDURE_NAME, list of SYSTEM_ATTIBUTE, list of SECURITY_TYPE, list of FACILITY_LOCATION, list of NERC_CURTAILMENT_PRIORITY, list of OTHER_CURTAILMENT_PRIORITY, list of CATEGORY, list of TEMPLATE, list of LIST
LIST_ITEM_DESCRIPTION	ITEMDESC	0{ALPHANUMERIC} 100	Free form text	A detailed description of the LIST_ITEM

LIST_NAME	LIST	1{ALPHANUMERIC} 50	LIST, SELLER, PATH, POR, POD, SERVICE_INCREME NT, TS_CLASS, TS_TYPE, TS_PERIOD, TS_SUBCLASS, AS_TYPE, NERC_CURTAILMEN T_PRIORITY, REQUEST_TYPE, ANC_SERVICE_POIN T, FACILITY_CLASS, FACILITY_LIMIT_TY PE, PROCEDURE_NAME, SYSTEM_ATTRIBUT E, SECURITY_TYPE, FACILITY_LOCATIO N, OTHER_CURTAILME NT_PRIORITY, CATEGORY, TEMPLATE	List of valid names for each of the types of lists. The minimum set of lists defined must be implemented.
MESSAGE	MSG	1{ALPHANUMERIC} 200	Free form text	An informative text message
MODIFYING_ COMPANY_CODE	MODCODE	1{ALPHANUMERIC} 6	Registered company code for a TP, SC or CA	Contains the registered company code that modified the transaction, used in the audit Templates
MODIFYING_NAME	MODNAME	0{ALPHANUMERIC} 25	free form text	Contain the name of the person that modified the transaction, used in the audit Templates

MODIFICATION_REF	MODREF	1{ALPHANUMERIC} 12	Valid ASSIGNMENT_REF	Forward pointer. Pointing to next reservation that replaces the current reservation
NEGOTIATED_PRICE_FLAG	NGPRIFLG	0{ALPHANUMERIC} 1	H, L, or blank	Set to H if OFFER_PRICE is higher than the currently posted price; set to L if OFFER_PRICE is lower than the currently posted price
NERC_CURTAILMENT_PRIORITY	NERCURT	1{INTEGER}1	Integer	One of the NERC curtailment priorities, documented in LIST Template
NEW_COMPANY	NEWCO	1{ALPHANUMERIC} 25	Free form text	New company of the person who is transferring
				Data Element
NEW_DEPARTMENT	NEWDEPT	1{ALPHANUMERIC} 52	Free form text	New department of the person who is transferring
NEW_POSITION	NEWPOS	1{ALPHANUMERIC} 25	Free form text	New position held by the person who is transferring
OFFER_PRICE	OFFPR	1{NUMERIC}5 + "." + 2{NUMERIC}4	Positive number with 2 to 4 decimals	The current offered price of a Service in dollars and cents. Used by the Seller to indicate the offering price.
OFFER_START_TIME	OFFSTIME	0,16{ALPHANUMERIC} 16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start time of the window during which a Customer may request a discounted offer. If null, no restrictions on the start of the offering time is implied (other than tariff requirements).
OFFER_STOP_TIME	OFFSPTIME	0,16{ALPHANUMERIC} 16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Stop time of the window during which a Customer may request a discounted offer. (Expiration time of an offer). If null, no restrictions on the end of the offering time is implied (other than tariff requirements).
OLD_DATA	OLDDATA	0{ALPHANUMERIC} 200	Any valid Data Element value	For audit log, the old value of a Template Data Element prior to being updated. This element is not applicable in the audit log for transaction events.

OPTIONAL_CODE	N/A	0{ALPHANUMERIC} 25	Unique path name within region	OPTIONAL_CODE - 25 chars, unique for Path. If used for directionality, then the first 12 characters shall represent POR, followed by >->, followed by 12 characters which shall represent POD. Used by PATH_NAME.
OTHER_CURTAILMENT_PRIORITY	OTHCUR	0{ALPHANUMERIC} 8	Free form text	Other than NERC curtailment priorities, such as regional curtailment priorities. Suggested format region+number, for example MAPP4, WSCC7. Documented in LIST Template.
OUTPUT_FORMAT	FMT	4{ALPHANUMERIC} 4	HTML, DATA	Format of response: HTML = hypertext markup language for presentation using a web browser DATA = text for use in a downloaded file.
PATH_CODE	N/A	0{ALPHANUMERIC} 12	Unique code for each path as defined by primary provider	Unique code within a Region for each path. Used by PATH_NAME

PATH_NAME	PATH	5 {ALPHANUMERIC} 50	Unique value	<p>The unique name assigned to a single transmission line or the set of one or more parallel transmission lines whose power transfer capabilities are strongly interrelated and must be determined in aggregate. These lines are typically described as being on a path, corridor or interconnection in some regions, or as crossing an interface or cut-plane in other regions. Multiple lines may be owned by different parties and require prorating of capability shares.</p> <p>The name is constructed from the following codes, with each code separated by a "/". Trailing "/" may be omitted, if there are no values for OPTION_CODE and SPARE_CODE:</p> <p>REGION_CODE - 2 chars, unique to OASIS System</p> <p>PRIMARY_PROVIDER_CODE - 4 chars, unique within Region</p> <p>PATH_CODE - 12 chars, unique for Primary Provider</p> <p>OPTIONAL_CODE - 25 chars, unique for Path. If used for directionality, then the first 12 characters shall represent POR, followed by &gt;-&gt;, followed by 12 characters which shall represent POD</p> <p>SPARE_CODE - 3 chars.</p>
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POINT_OF_DELIVERY	POD	1 {ALPHANUMERIC} 12, Only non-numeric and non-alpha character allowed is ".".	Unique value within Primary Provider. Only special character allowed is ".", for example, ab.cde.123	Point of Delivery is one or more point(s) of interconnection on the Transmission Provider's transmission system where capacity and/or energy transmitted by the Transmission Provider will be made available to the Receiving Party. This is used along with Point of Receipt to define a Path and direction of flow on that path. For internal paths, this would be a specific location(s) in the area. For an external path, this may be an area-to-area interface.
POINT_OF_RECEIPT	POR	1 {ALPHANUMERIC} 12 Only non-numeric and non-alpha character allowed is ".".	Unique value within Primary Provider. Only special character allowed is ".", for example, ab.cde.123	Point of Receipt is one or more point(s) of interconnection on the Transmission Provider's transmission system where capacity and/or energy transmitted will be made available to the Transmission Provider by the Delivering Party. This is used along with Point of Delivery to define a Path and direction of flow on that path. For internal paths, this would be a specific location(s) in the area. For an external path, this may be an area-to-area interface.
POSTING_NAME	POSTNAME	1 {ALPHANUMERIC} 25	Free form text	Name of person who is posting the information on the OASISNode
POSTING_REF	POSTREF	1 {ALPHANUMERIC} 12	Unique Value	Assigned by TSIP when Service or Message is received by TSIP. Unique reference can be used by the user to modify or delete the posting.

PRECONFIRMED	PRECONF	2{ALPHA}3	YES or NO	Used by Customer to preconfirm sale in Template TRANSREQUEST or ANCREQUEST. If customer indicates sale is preconfirmed, then the response is YES and the customer does not need to confirm the sale.
PRICE_UNITS	UNITS	0(ALPHA)20	Free form text	The units used for CEILING_PRICE, OFFER_PRICE, and BID_PRICE. Examples: \$/MWhr, \$/MWmonth
PRIMARY_PROVIDER_CODE	PROVIDER	1{ALPHANUMERIC}4	Unique code	Unique code for each Primary Provider. Used by PATH_NAME and in URL. Registered as part of URL at www.tsin.com.
PRIMARY_PROVIDER_COMMENTS	PPROVCOM	0{ALPHANUMERIC}255	Free-form text	Informative text. Usually entered by the Primary Provider through a back end system. For information communicated between primary transmission provider and all other parties.
PRIMARY_PROVIDER_DUNS	PPROVDUNS	9{NUMERIC}9	Valid DUNS number	Unique code for each Primary. Provided by Dun and Bradstreet.
PROCEDURE_NAME	PROCNAME	0{ALPHANUMERIC}25	Free form text, for example NERC TLR Or as indicated in the LIST Template	Name of TLR or interruption procedure
PROCEDURE_LEVEL	PROCLVL	1{ALPHANUMERIC}25	Valid NERC or local procedure level	NERC or local procedure level Example: 2a, 3
PROVIDER_ACTION	PROVACT	1{ALPHANUMERIC}25	Free form text, for example: DENIED CURTAILED INTERRUPTED	PROVIDER_ACTION indicates the particular action taken by the Transmission Provider with respect to the scheduled transaction; specific values to be returned are, DENIED if the schedule was not started as requested, CURTAILED if the scheduled MW was limited for reliability reasons, or INTERRUPTED if the scheduled MW was limited for economic reasons.

REASSIGNED_CAPACITY	RASCAP	1{NUMERIC}12	Positive number, cannot exceed previous assigned capacity	The amount of transfer capability that was reassigned from one entity to another.
REASSIGNED_REF	REREF	1{ALPHANUMERIC}12	Unique value	<u>REASSIGNED_REF</u> contains the <u>ASSIGNMENT_REF</u> of any preceding (parent) requests that are affected by this request. Used only for secondary market sales.
REASSIGNED_START_TIME	RESSTIME	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh+tz	Beginning date and time of the reassigned transmission service
REASSIGNED_STOP_TIME	RESSPTIME	16{ALPHANUMERIC}16	Valid date and time to hour: yyyy+mo+dd+hh+tz	Date and time of the end of the transmission service that is reassigned to another User.
RECORD_STATUS	RECSTATUS	1{NUMERIC}3	Error number	Record status indicating record was successful or error code if unsuccessful. 200 = Successful
RECORD_TYPE	RECTYPE	1{ALPHA}1	Valid Types: I U D	Indicates the type of information reported in a response record generated by an audit Template. "I" designates information as it was initially inserted (posted) on OASIS; "U" designates information updated (modified) on OASIS; "D" designates deleted information as it appeared on OASIS just prior to being deleted (as appropriate).
REDUCTION_REASON	REDREAS	1{ALPHANUMERIC}50	Free form text	Reason for the reduction
REDUCTION_TYPE	REDTYPE	1{ALPHANUMERIC}25	Free form text	Type of reduction such as REDIRECT, INTERRUPTION, RESALE, DISPLACEMENT

REGION_CODE	N/A	1{ALPHANUMERIC} 2	Unique within OASIS System	Defined for NERC regions, with the following defined: E - ECAR I - MAIN S - SERC T - ERCOT A - MAPP P - SPP M - MAAC N - NPCC W - WSCC F - FRCC Second character or digit reserved for subregion id as defined by each region.
RELATED_REF	RELREF	1{ALPHANUMERIC} 12	Unique reference	<u>Contains the ASSIGNMENT_REF of any preceding (parent) requests that are affected by this request</u>
REQUEST_REF	RREF	0{ALPHANUMERIC} 12	Unique value	A reference uniquely assigned by a Customer to a request for service from a Provider.
REQUEST_STATUS	RSTATUS	1{NUMERIC}3	Error number	Message status indicating message was successful (if all RECORD_STATUS show success) or error code if any RECORD_STATUS showed unsuccessful. 200 = Successful

REQUEST_TYPE	REQTYPE	1{ALPHA}30	Valid Types: ORIGINAL RESALE RENEWAL MATCHING DEFERRAL REDIRECT {Registered}	ORIGINAL – typical reservation requests submitted to the Primary Provider RESALE – secondary market requests submitted to a Transmission Customer as Secondary Transmission Provider RENEWAL – request to renew an expiring transmission reservation MATCHING – request to meet or exceed a competing request to retain transmission service (right of first refusal) DEFERRAL – request to defer or apply for extension on start of transmission service REDIRECT – request to redirect all or portion of a transmission reservation to an alternate POR/POD and/or make other changes to the terms of service as permitted {registered} – Primary Transmission Provider's may register values for REQUEST_TYPE to implement specific provisions of their Tariffs.
RESPONSE_TIME_LIMIT	RESPTL	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time to seconds by when a response must be received from a Customer
RESPONSIBLE_PARTY	PARTY	1{ALPHANUMERIC}25	Free form text	The company code or the name of the person who initiated the reduction, e.g. the security coordinator code
RESPONSIBLE_PARTY_NAME	PARTNAME	1{ALPHANUMERIC}25	Free form text	The name of the person responsible for granting the discretion.
RETURN_TZ	TZ	2{ALPHANUMERIC}2	AD, AS, PD, PS, ED, ES, MD, MS, CD,CS, UT	A time zone code, indicating the base time zone, and whether daylight saving time is to be used. This field may be set by a Customer in a query. Returned date and time data is converted to this time zone.
SALE_REF	SREF	0{ALPHANUMERIC}12	Unique value	Identifier which is set by seller (including Primary Provider) when posting a service for sale
SCHEDULE_GRANTED	SCHEDGRNT ED	0{NUMERIC}12	Non-negative number in units of MW	SCHEDULE_GRANTED reflects the MW value of energy actually scheduled by the Transmission Provider at either the point of receipt or delivery, whichever is larger, over the START_TIME/STOP_TIME time interval

SCHEDULE_LIMIT	SCHEDULELIMIT	0{NUMERIC}12	Non-negative number in units of MW	SCHEDULE_LIMIT reflects the <b>maximum</b> MW value over the START_TIME/STOP_TIME interval that the Provider has determined can be scheduled
SCHEDULE_PRIORITY	SPRIORITY	0{NUMERIC}2	Positive Number	SCHEDULE_PRIORITY identifies the relative priority of this particular interchange transaction as compared to all other scheduled transactions with respect to the application of curtailments or interruptions. SCHEDULE_PRIORITY would typically reflect the curtailment priority Data Elements associated with the OASIS transmission reservation used to support the schedule (i.e., NERC_CURTAILMENT_PRIORITY or OTHER_CURTAILMENT_PRIORITY).
SCHEDULE_REF	SCHDREF	0{ALPHANUMERIC}20	Unique reference	Unique reference assigned by Transmission Provider to a posting of a schedule information
SCHEDULE_REQUESTED	SCHEDULEREQ	0{NUMERIC}12	Non-negative number in units of MW	Scheduled energy requested by the Transmission Customer (TC)
SECURITY_REF	SECREP	1{ALPHANUMERIC}10	Unique value	Unique value generated by company initiating the security for each security event in the SECURITY Template.
SECURITY_TYPE	SECTYPE	1{ALPHANUMERIC}	Free form text for example: OUTAGE LIMIT	SECURITY_TYPE identifies the type of information posted for the event; restricted values are OUTAGE for postings reflecting the state of critical transmission facilities, and LIMIT for postings reflecting the implementation of security procedures to limit or reduce scheduled transactions.
SELLER_CODE	SELLER	1{ALPHANUMERIC}6	Unique value	Organization name of Primary Provider or Reseller.
SELLER_COMMENTS	SELCOM	0{ALPHANUMERIC} 255	Free-form text	Informative text provided by the Seller. For information communicated between the seller (either Primary Provider or reseller) to the customer of the services.
SELLER_DUNS	SELDUNS	9{NUMERIC}9	Valid DUNS number	Unique Data Universal Numbering System provided by Dun and Bradstreet. Code for a Primary Provider or Seller.
SELLER_EMAIL	SELEMAIL	5{ALPHANUMERIC}60	Valid network reference	E-Mail address of Seller contact person

SELLER_FAX	SELFAX	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions Example: (aaa)-nnn-nnnn xnnnn	The fax telephone number for contact person at Seller.
SELLER_NAME	SELNAME	1{ALPHANUMERIC}25	Free form text	The name of an individual contact person at the Seller.
SELLER_PHONE	SELPHONE	14{ALPHANUMERIC}20	Area code and telephone number, plus any extensions (aaa)-nnn-nnnn xnnnn	The telephone number of a contact person as a Seller
SELLER_REF	SELREF	0{ALPHANUMERIC}12	Free-form text	Identifier which is set by seller (including Primary Provider) to uniquely identify reservation requests for seller's own internal use
SERVICE_DESCRIPTION	SVCDESC	0{ALPHANUMERIC} 200	Free-form text	Information regarding a service.
SERVICE_INCREMENT	SRVINCR	1{ALPHANUMERIC}8	Valid increments <ul style="list-style-type: none"> <li>• HOURLY</li> <li>• Daily</li> <li>• Weekly</li> <li>• Monthly</li> <li>• Yearly</li> <li>• {Registered}</li> </ul>	The transmission service increments provided. Five are pre-defined, while additional increments can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template
SERVICE_NAME	SVCNAME	1{ALPHANUMERIC} 25	Free-form text	Name of service affected by the discretionary action
SERVICE_TYPE	SVCTYPE	1{ALPHANUMERIC} 25	Free-form text	Type of service affected by the discretionary action.
SINK	SINK	0{ALPHANUMERIC}14	Valid area name	The area in which the SINK is located.
SOURCE	SOURCE	0{ALPHANUMERIC}14	Valid area name	The area in which the SOURCE is located.
SPARE_CODE	N/A	0{ALPHANUMERIC}3	Defined by region	Spare code to be used at a later time. Used by PATH NAME
STANDARDS_OF_CONDUCT_ISSUES	STDISSUE	0{ALPHANUMERIC}800	Free-form text	Issues that were in violation of the FERC Standards of Conduct. This text may include a reference pointer to a more detailed description.

START_TIME	STIME	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start date and clock time of a service. When used as a Query Variable, it requires the return of all items whose Stop time is after the Start time. Note that for some Templates when used as a Query Variable the time may be only valid up to the hour, day or month. If more data is given than is valid, the hour, day or month will be used to make the date and time inclusive, i.e. date or time will be truncated to valid hour, day or month.
START_TIME_POSTED	STIMEP	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Query parameter to indicate all the records are to be retrieved that were posted on or after this time.
START_TIME_QUEUED	STIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Start date and clock time of a service, used for requesting transactions queued after this time
STATUS	STATUS	5{ALPHANUMERIC}25	Valid field (QUEUED, INVALID, RECEIVED, STUDY, REBID, COUNTEROFFER, DECLINED, SUPERSEDED, ACCEPTED, REFUSED, CONFIRMED, WITHDRAWN, DISPLACED, ANNULLED, RETRACTED)	<p>QUEUED = initial status assigned by TSIP on receipt of "customer services purchase request".</p> <p>INVALID = assigned by TSIP or Provider indicating an invalid field in the request, such as improper POR, POD, source, sink, etc. (Final state).</p> <p>RECEIVED= assigned by Provider or Seller to acknowledge QUEUED requests and indicate the service request is being evaluated, including for completing the required ancillary services.</p> <p>STUDY= assigned by Provider or Seller to indicate some level of study is required or being performed to evaluate service request.</p> <p>REFUSED = assigned by Provider or Seller to indicate service request has been denied due to lack of availability of transmission capability. SELLER_COMMENTS should be used to communicate details for denial of service. (Final state).</p>

STATUS (cont.)				<p>COUNTEROFFER= assigned by Provider or Seller to indicate that a new OFFER_PRICE is being proposed or that CAPACITY_GRANTED is less than CAPACITY_REQUESTEDREBID = assigned by Customer to indicate that a new BID_PRICE is being proposed.</p> <p>SUPERSEDED = assigned by Provider or Seller when a request which has not yet been confirmed is preempted by another reservation request. (Final state).</p> <p>ACCEPTED = assigned by Provider or Seller to indicate the service request at the designated OFFER_PRICE and CAPACITY_GRANTED have been approved/accepted. If the reservation request was submitted PRECONFIRMED and CAPACITY_GRANTED is equal to CAPACITY_REQUESTED, the TSIP shall immediately set the reservation status to CONFIRMED. Depending upon the type of ancillary services required, the Seller may or may not require all ancillary service reservations to be completed before accepting a request.</p>
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STATUS (cont.)				<p>DECLINED = assigned by the Provider or Seller to indicate that the terms and conditions, such as the BID_PRICE, are unacceptable and that negotiations are terminated or that contractual terms have not been met. (Final state).</p> <p>RETRACTED = assigned by Provider or Seller when the Customer fails to confirm or withdraw an accepted updated offer within the required time period. (Final state).</p> <p>WITHDRAWN = assigned by the Customer at any point in request evaluation to withdraw the request from any further action. (Final state).</p> <p>CONFIRMED = assigned by the Customer in response to the Provider or Seller posting "ACCEPTED" status, to confirm service. Once a request has been "CONFIRMED", a transmission service reservation exists. (Final state, unless overridden by DISPLACED or ANNULLED state).</p> <p>DISPLACED = assigned by Provider or Seller when a "CONFIRMED" reservation from a Customer is displaced by a higher priority request, and the Customer is not offered or has not exercised right of first refusal (i.e. refused to</p>
STATUS_COMMENTS	STACOM	0{ALPHANUMERIC} 255	Free form text	Informative: For information to be communicated by any party to all other parties.
STATUS_NOTIFICATION	STATNOT	0{ALPHANUMERIC} 200	<p>http://URL:portnumber/directory/cgi script/query parameters</p> <p>or</p> <p>Mailto: &lt;e-mail address&gt;</p>	<p>The STATUS_NOTIFICATION Data Element shall contain the protocol field "http:", which designates the notification method/protocol to be used, followed by all resource location information required; the target domain name and port designations shall be inserted into the notification URL based on the Customer's Company registration information. The resource location information may include directory information, cgi script identifiers and URL encoded query string name/value pairs as required by the Customer's application.</p> <p>or mailto and email address for the status information the Customer wants to receive upon a change in STATUS of transstatus, or ancstatus</p>

STOP_TIME	SPTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Stop date and clock time. When used as a Query Variable, it requires the return of all items which start before the Stop time. Note that for some Templates when used as a Query Variable the time may be only valid up to the hour, day or month. If more data is given than is valid, the hour, day or month will be used to make the date and time inclusive, i.e. date or time will be increased to include STOP TIME.
STOP_TIME_POSTED	STPTIMEP	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Query parameter to indicate all the records are to be retrieved that were posted on or before this time.
STOP_TIME_QUEUED	SPTIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Stop date and clock time, used for requesting transactions queued before this time
SUBJECT	SUBJ	0{ALPHANUMERIC} 80	Free form text	Informative text used to summarize a topic in a message
SYSTEM_ATTRIBUTE	SYSATTR	0{ALPHANUMERIC}15	Valid values: CBM TRM TTC NATC RATC or listed in the LIST Template	Type of system data viewed by SYSTEMDATA Template: CBM – Capacity Benefit Margin TRM – Transmission Reliability Margin TTC – Total Transmission Capability NATC – Non-recallable (Firm) Available Transmission Capability RATC – Recallable (Non-firm) Available Transmission Capability {registered} – Provider specific registered name for the data posted
TARIFF_REFERENCE	TARIFF	0{ALPHANUMERIC} 150	Free form text. Name and description of Tariff	Tariffs approved by FERC
TEMPLATE	TEMPL	1{ALPHANUMERIC}20	Valid Name of Template from Section 4.3 or from LIST Template	The name of a logical collection of DATA_ELEMENTS in a User's interaction with an OASIS Node.
TIME_OF_LAST_UPDATE	TLUPDATE	16{ALPHANUMERIC}16	Valid date and time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time to seconds that data was last updated. May be used to search data updated since a specific point in time.

TIME_POSTED	TIMEPST	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time a message is posted
TIME_QUEUED	TIMEQ	16{ALPHANUMERIC}16	Valid Date and Time to seconds: yyyy+mo+dd+hh +mm+ss+tz	Date and time that the request was queued
TIME_STAMP	TSTAMP	16{ALPHANUMERIC}16	Valid date and Time to seconds yyyy+mo+dd+hh+mm+ss+tz	Time data is created
TRANSACTION_ID	TRANSID	1{ALPHANUMERIC}20	Unique value	Unique identifier associated with an interchange transaction that may span multiple SCHEDULE_REF records. May be the Tag id.
TS_CLASS	TSCLASS	1{ALPHANUMERIC}20	Valid classes: <ul style="list-style-type: none"> <li>• FIRM</li> <li>• NON-FIRM</li> <li>• TTC</li> <li>• SECONDARY</li> <li>• Registered}</li> </ul>	The transmission service classes provided. Four are pre-defined, while additional classes can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template page. SECONDARY is defined as alternate points of receipt or delivery for POINT_TO_POINT, or as nondesignated resources for NETWORK service.
TS_PERIOD	TSPER	1{ALPHANUMERIC}20	Valid periods: <ul style="list-style-type: none"> <li>• ON_PEAK</li> <li>• OFF_PEAK</li> <li>• FULL_PERIOD</li> <li>• {Registered}</li> </ul>	The transmission service periods provided. Three are pre-defined, while additional periods can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template
TS_SUBCLASS	TSSUBC	0{ALPHANUMERIC}20	Free Form	The transmission service subclasses provided. These are freeform.
TS_TYPE	TSTYPE	1{ALPHANUMERIC}20	Valid types <ul style="list-style-type: none"> <li>• POINT_TO_POIN T</li> <li>• NETWORK</li> <li>• ATC</li> <li>• {Registered}</li> </ul>	The transmission service types provided. Three are pre-defined, while additional types can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template

TS_WINDOW	TSWIND	1{ALPHANUMERIC}20	Valid windows <ul style="list-style-type: none"> <li>• FIXED</li> <li>• SLIDING</li> <li>• EXTENDED</li> <li>• NEXT_INCREMENT</li> <li>• {Registered }</li> </ul>	The transmission service windows provided. Four are pre-defined, while additional windows can be used if they are registered on TSIN.COM and shown in the Provider's LIST Template
TZ	TZ	2{ALPHANUMERIC}2	Valid time zone and indication whether daylight savings time is to be used	Time zones: Atlantic time = AD, AS Eastern time = ED, ES Central time = CD, CS Mountain time = MD, MS Pacific time = PD, PS Universal time = UT
VALID_FROM_TIME	VALFTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Date and time after which the message is valid
VALID_TO_TIME	VALTTIME	16{ALPHANUMERIC}16	Valid date and time yyyy+mo+dd+hh +mm+ss+tz	Date and time before which the message is valid
VALUE	VALUE	1{NUMERIC}20	A number	FACILITY_ATTRIBUTE value
VALUE_UNITS	VALUEUTS	1{ALPHANUMERIC}20	Free form string	Unites used for VALUE
VERSION	VER	1{REAL NUMBER}6	Range of 1.0 to 9999.9	Specifies which version of the OASIS Standards and Communication Protocol to use when interpreting the request